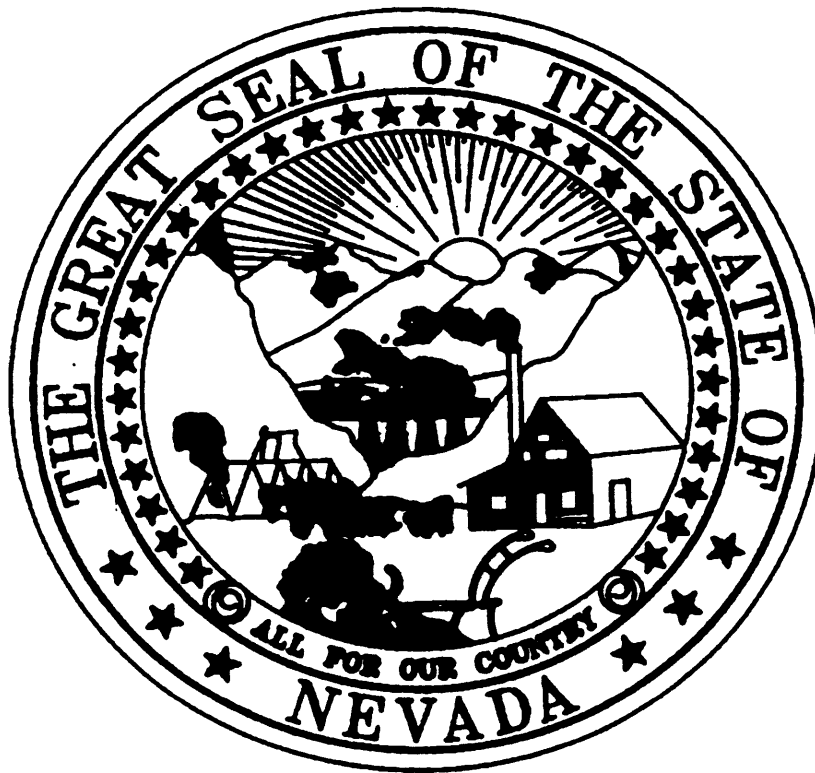


**State of Nevada  
Division of Environmental Protection  
Bureau of Water Quality Planning  
333 West Nye Lane  
Carson City, Nevada**



# **WATER QUALITY REGULATIONS**

**Revised February, 1998**

**Also Located at:  
[WWW.LEG.STATE.NV.US/LAW1.HTM](http://WWW.LEG.STATE.NV.US/LAW1.HTM)**

# CHAPTER 445A

## WATER CONTROLS

### PROTECTION OF LAKE TAHOE

#### Construction Generally

445A.001	Definitions.....	23
445A.002	"Breakwater" defined.....	23
445A.003	"Commercial construction" defined.....	23
445A.004	"Division" defined.....	23
445A.005	"Fills" defined.....	23
445A.006	"Lake Tahoe Watershed" defined.....	23
445A.007	"Pier" defined.....	23
445A.008	"Shoreline protection" defined.....	23
445A.009	"Single-family residence" defined.....	23
445A.010	Construction permit required.....	24
445A.011	Permits for construction of residences.....	24
445A.012	Permits for commercial or public construction.....	24
445A.013	Request for permit: Information required.....	25
445A.014	Objections to permit.....	25
445A.015	Expiration, renewal of permit.....	26
445A.016	Inspection of the site.....	26
445A.017	Subdivision plans.....	26
445A.018	Land subdivided prior to 1949.....	26
445A.019	Shoreline and alteration appurtenances.....	26
445A.020	Minor repairs, alterations and protection of property.....	27
445A.021	Reference guides for construction.....	27
445A.022	Community water supply and sewage disposal.....	27
445A.023	Approval of installation of water supply and sewage disposal systems.....	27
445A.024	Prohibited discharges.....	27
445A.025	Marine toilets.....	28
445A.026	Variances.....	28

#### Permits to Construct Piers, Breakwaters or Mooring Buoys

445A.028	Definitions.....	28
445A.029	"Breakwater" defined.....	29
445A.030	"Commercial use" defined.....	29
445A.031	"Department" defined.....	29
445A.032	"Director" defined.....	29
445A.033	"Dredging" defined.....	29
445A.034	"Fill" defined.....	29
445A.035	"Floating dock or platform" defined.....	29
445A.036	"Industrial use" defined.....	29
445A.037	"Littoral parcel" defined.....	29
445A.038	"Multiple use" defined.....	29
445A.039	"Navigational structure" defined.....	30
445A.040	"Permit" defined.....	30
445A.041	"Person" defined.....	30
445A.042	"Pier" defined.....	30
445A.043	"Salvage" defined.....	30
445A.044	Application for permit; duration of permit.....	30
445A.045	Purposes for which permits may be issued; types of permits.....	30
445A.046	Procedure upon receipt of application for permit.....	31
445A.047	Factors considered in issuance or denial of permit.....	31
445A.048	Construction of dock, pier or similar structure: Location; warning marker; identifying device.....	32
445A.049	Permit required to repair or alter structure.....	32
445A.050	Cancellation of permit.....	32
445A.051	Renewal of permit.....	33
445A.052	Transfer of permit.....	33

#### CERTIFICATION OF LABORATORIES TO ANALYZE SUBSTANCES IN WATER

445A.055	Definitions.....	33
445A.056	Certification required to perform certain analyses.....	33

445A.057	Acceptance of analyses conducted by laboratory located outside state.	33
445A.058	Qualifications for certification.	34
445A.059	Procedure for certification.	34
445A.060	Evaluation of performance: Required analyses; provisional certification of uncertified laboratory.	34
445A.061	Evaluation of performance: Incorrect analyses.	35
445A.062	Evaluation of laboratory: Procedure.	36
445A.063	Length of validity of certification; evaluations conducted at site of laboratory; renewal and revocation of certification.	36
445A.0635	Denial of application or revocation of certification: Grounds.	37
445A.064	Denial of application or revocation of certification: Notice; recertification.	37
445A.065	Duty of operator to report certain changes: Effect of changes on certification; revocation of certification.	38
445A.0655	Maintenance and availability of records.	38
445A.066	Fees for certification.	39
445A.067	Review by state environmental division of publications adopted by reference.	40

## WATER POLLUTION CONTROL

### General Provisions

445A.070	Definitions.	40
445A.071	"A.G.M." defined.	40
445A.072	"Act" defined.	40
445A.073	"Acute toxicity value" defined.	40
445A.074	"Administrator" defined.	40
445A.075	"Aquatic animal production facility" defined.	40
445A.076	"Buffer zone" defined.	41
445A.077	"Commission" defined.	41
445A.078	"Complete treatment" defined.	41
445A.079	"Conventional treatment" defined.	41
445A.080	"Department" defined.	41
445A.081	"Director" defined.	41
445A.082	"Discharge" defined.	41
445A.083	"Disinfection" defined.	42
445A.084	"Division" defined.	42
445A.085	"Effluent limitation" defined.	42
445A.086	"Filtration" defined.	42
445A.087	"Individual sewage disposal system" defined.	42
445A.088	"Industrial user" defined.	42
445A.089	"Industrial wastes" defined.	42
445A.090	"Interstate agency" defined.	42
445A.091	"Law" defined.	42
445A.092	"Minor discharge" defined.	42
445A.093	"Municipality" defined.	43
445A.094	"NPDES" defined.	43
445A.095	"Natural waters" defined.	43
445A.096	"New source" defined.	43
445A.097	"Origin" defined.	43
445A.098	"Permit" defined.	43
445A.099	"Person" defined.	43
445A.100	"Point source" defined.	43
445A.101	"Pollutant" defined.	44
445A.102	"Pollution" defined.	44
445A.103	"Pretreatment program" defined.	44
445A.104	"Pretreatment standards" defined.	44
445A.105	"Refuse Act application" defined.	44
445A.106	"Regional Administrator" defined.	44
445A.107	"Sewage" defined.	44
445A.108	"Source" defined.	44
445A.109	"Standard of performance" defined.	44
445A.110	"Toxic material" defined.	45
445A.111	"Treatment or waste treatment" defined.	45
445A.112	"Treatment works" defined.	45
445A.113	"Water quality standards or limitations" defined.	45
445A.114	"Waters of the state" defined.	45
445A.115	"Zone of mixing" defined.	45
445A.116	"Zone of passage" defined.	46
445A.117	Severability.	46

# Standards for Water Quality

445A.119	Criteria for water quality for designated beneficial uses.	46
445A.120	Applicability.	48
445A.121	Standards applicable to all waters.	48
445A.122	Standards applicable to beneficial uses.	49
445A.123	Classification and reclassification of waters.	50
445A.124	Class A waters: Description; beneficial uses; quality standards.	50
445A.125	Class B waters: Description; beneficial uses; quality standards.	56
445A.126	Class C waters: Description; beneficial uses; quality standards.	61
445A.127	Class D waters: Description; beneficial uses; quality standards.	64
445A.128	Definitions.	66
445A.129	"A-Avg." or "A.A." defined.	66
445A.130	"Δ" defined.	66
445A.131	"Δ pH" defined.	66
445A.132	"Δ T" defined.	66
445A.133	"Geometric mean" defined.	66
445A.134	"mg/l" defined.	67
445A.135	"No./100ml" defined.	67
445A.136	"NTU" defined.	67
445A.137	"PCU" defined.	67
445A.138	"pH unit" defined.	67
445A.139	"SAR" defined.	67
445A.140	"S.V." defined.	67
445A.141	"≥" defined.	67
445A.142	"≤" defined.	67
445A.143	Cooperation regarding Colorado River; salinity standards.	67
445A.144	Standards for toxic materials applicable to designated waters.	68
445A.145	Control points: Prescription and applicability of numerical standards for water quality; designation of beneficial uses.	71
445A.146	Beneficial uses for Carson River.	71
445A.147	Carson River: West Fork at the state line.	72
445A.148	Carson River: Bryant Creek near the state line.	73
445A.149	Carson River: East Fork at the state line.	74
445A.150	Carson River: East Fork at Highway 395, south of Gardnerville.	75
445A.151	Carson River: East Fork at Muller Lane.	76
445A.152	Carson River at Genoa Lane.	77
445A.153	Carson River at Cradlebaugh Bridge.	78
445A.154	Carson River at Mexican Ditch Gage.	79
445A.155	Carson River near New Empire.	80
445A.156	Carson River at Dayton Bridge.	81
445A.157	Carson River at Weeks.	82
445A.158	Carson River at Labontan Dam.	83
445A.159	Beneficial uses for Walker River.	84
445A.160	West Walker River at the state line.	85
445A.161	Topaz Lake.	86
445A.162	West Walker River near Wellington.	87
445A.163	West Walker River above confluence with East Walker River at Nordyke Road.	88
445A.164	Sweetwater Creek.	89
445A.165	East Walker River at the state line.	90
445A.166	East Walker River south of Yerington.	91
445A.167	Walker River at inlet to Weber Reservoir.	92
445A.168	Walker River at Schurz Bridge.	93
445A.169	Desert Creek.	94
445A.170	Beneficial uses for part of Colorado River, Beaver Dam Wash and certain creeks.	95
445A.171	Chiatovich Creek.	96
445A.172	Indian Creek.	97
445A.173	Leidy Creek.	98
445A.174	Beneficial uses for Virgin River, Meadow Valley Wash and part of Muddy River.	99
445A.175	Virgin River at Mesquite.	100
445A.176	Virgin River at the state line near Littlefield.	101
445A.177	Virgin River at Riverside.	102
445A.178	Beaver Dam Wash.	103
445A.179	Snake Creek.	104
445A.180	Smoke Creek.	105
445A.181	Bronco Creek.	106
445A.182	Gray Creek.	107
445A.183	Beneficial uses for Truckee River from Pyramid Lake to the state line.	108
445A.184	Truckee River at the state line.	109
445A.185	Truckee River at Idlewild.	110
445A.186	Truckee River at East McCarran.	111
445A.187	Truckee River at Lockwood Bridge.	112



445A.188	Truckee River at Derby Dam.....	113
445A.189	Truckee River at Wadsworth Gage.....	114
445A.190	Truckee River at Pyramid Lake.....	115
445A.1905	Beneficial uses for Lake Tahoe.....	116
445A.191	Lake Tahoe.....	116
445A.1912	Beneficial uses for tributaries to Lake Tahoe.....	118
445A.1915	Tributaries to Lake Tahoe.....	119
445A.1917	Standards to maintain higher quality waters within tributaries to Lake Tahoe.....	120
445A.192	Colorado River below Davis Dam.....	122
445A.193	Colorado River below Hoover Dam.....	123
445A.194	Beneficial uses for area of Lake Mead not covered by NAC 445A.196.....	124
445A.195	Lake Mead excluding area covered by NAC 445A.197.....	125
445A.196	Beneficial uses for Lake Mead from western boundary of Las Vegas Marina Campground to confluence of Las Vegas Wash.....	126
445A.197	Lake Mead from the western boundary of Las Vegas Marina Campground to the confluence of Las Vegas Wash.....	127
445A.198	Beneficial uses for Las Vegas Wash from Pabco Road to city and county sewage treatment plants.....	128
445A.199	Las Vegas Wash from Pabco Road to city and county sewage treatment plants.....	129
445A.200	Beneficial uses for Las Vegas Wash from Pabco Road to Lake Mead.....	130
445A.201	Las Vegas Wash.....	131
445A.202	Beneficial uses for Humboldt River.....	132
445A.203	Humboldt River near Osino.....	133
445A.204	Humboldt River at Palisade Gage.....	134
445A.205	Humboldt River at Battle Mountain Gage.....	135
445A.206	Humboldt River at crossing of state highway 789.....	136
445A.207	Humboldt River at Imlay.....	137
445A.208	Humboldt River at Woolsey.....	138
445A.209	Beneficial uses for Muddy River at Glendale Bridge.....	139
445A.210	Muddy River at Glendale Bridge.....	140
445A.211	Muddy River at Overton.....	141
445A.212	Meadow Valley Wash.....	142
445A.213	Minimum quality criteria applicable to interstate waters.....	143
445A.214	Beneficial uses for areas in Snake River Basin.....	143
445A.215	Big Goose Creek.....	145
445A.216	Salmon Falls Creek.....	146
445A.217	Shoshone Creek.....	147
445A.218	Jarbridge River: East Fork.....	148
445A.219	Jarbridge River upstream from Jarbridge.....	149
445A.220	Jarbridge River downstream from Jarbridge.....	150
445A.221	Bruneau River: West Fork.....	151
445A.222	Owyhee River: East Fork above Mill Creek.....	152
445A.223	Owyhee River: East Fork south of Owyhee.....	153
445A.224	Owyhee River: East Fork, Nevada-Idaho state line.....	154
445A.225	Owyhee River: South Fork.....	155

#### Action Levels for Contaminated Sites

445A.226	Definitions.....	156
445A.22605	"Action level" defined.....	156
445A.2261	"Administrator" defined.....	156
445A.22615	"Aquifer" defined.....	156
445A.2262	"Corrective action" defined.....	156
445A.22625	"Director" defined.....	156
445A.2263	"Division" defined.....	156
445A.22635	"Ground water" defined.....	156
445A.2264	"Hazardous substance" defined.....	156
445A.22645	"Hazardous waste" defined.....	156
445A.2265	"Operator" defined.....	156
445A.22655	"Owner" defined.....	157
445A.2266	"Person" defined.....	157
445A.22665	"Regulated substance" defined.....	157
445A.2267	"Release" defined.....	157
445A.22675	"Remediation standard" defined.....	157
445A.2268	"Surface water" defined.....	157
445A.22685	Applicability.....	157
445A.2269	Assessment of conditions at site of facility after notification of release of pollutant.....	157
445A.22695	Immediate action required under certain circumstances.....	158
445A.227	Contamination of soil: Order by director for corrective action; factors to be considered in determining whether corrective action required.....	158
445A.22705	Contamination of soil: Evaluation of site by owner or operator; review of evaluation by division.....	158

445A.2271	Contamination of soil: Plan and schedule for completing corrective action.....	159
445A.22715	Contamination of soil: Waiver of requirements.....	159
445A.2272	Contamination of soil: Establishment of action levels.....	159
445A.22725	Contamination of ground water: Order by director for corrective action; request for exemption; exception.....	160
445A.2273	Contamination of ground water: Plan and schedule for completing corrective action.....	160
445A.22735	Contamination of ground water: Establishment of action levels.....	160
445A.2274	Contamination of ground water: Remediation standard.....	161
445A.22745	Contamination of ground water: Monitoring; conditions for terminating remediation of release.....	161
445A.2275	Contamination of surface water.....	162
445A.22755	Public hearings regarding corrective action affecting more than one owner or operator.....	162

#### Discharge Permits

445A.228	Exemptions.....	162
445A.229	Issuance of permit prohibited in certain cases.....	163
445A.230	Application for permits.....	163
445A.231	Signatures required on application and reporting forms.....	164
445A.232	Fees. [Effective until July 1, 1999.].....	164
445A.232	Fees. [Effective from July 1, 1999, until July 1, 2001.].....	167
445A.232	Fees. [Effective July 1, 2001.].....	169
445A.233	Determination of application prior to public notice.....	172
445A.234	Public notice regarding permit; contents.....	173
445A.235	Notice to other governmental agencies.....	173
445A.236	Fact sheets.....	174
445A.237	Public access to information; confidentiality.....	174
445A.238	Request for public hearing.....	175
445A.239	Notice of public hearings: Contents of notice.....	175
445A.240	Notification of issuance or denial.....	176
445A.241	Duration and reissuance of permits.....	176
445A.242	Transmission of issued permits to regional administrator.....	176
445A.243	Establishment of effluent limitation.....	176
445A.244	Schedules of compliance.....	177
445A.245	Verification of water quality.....	177
445A.246	Application of more stringent standards of performance.....	178
445A.247	Entry and inspection of premises: sampling; copying of records.....	178
445A.248	Cost of testing and sampling borne by discharger.....	178
445A.249	Procedures to monitor, record and report.....	178
445A.250	Monitoring.....	178
445A.251	Recording of results of monitoring.....	179
445A.252	Periodic reporting of results of monitoring.....	179
445A.253	Disposal of pollutants into wells.....	179
445A.254	Standards for pretreatment; adoption by reference; inspection.....	180
445A.255	Discharge from publicly owned treatment works: Notice to director.....	180
445A.256	Discharge from publicly owned treatment works capable of administering pretreatment program.....	180
445A.257	Discharge from publicly owned treatment works without pretreatment program.....	181
445A.258	Notice of changes in discharges of pollutants: expansion of facilities, increase in production or modification of process.....	181
445A.259	Maintenance of facilities required.....	181
445A.260	Emergency powers of director.....	181
445A.261	Modification, suspension, revocation of permit: Grounds.....	182
445A.262	Modification of permit to meet toxic effluent standard.....	182
445A.263	Modification, suspension, revocation of permit: Procedure.....	182

#### General Permits

445A.266	Issuance of permit; notice of intent to engage in activity; location of facility approved to operate under permit; requirements for discharge.....	183
445A.267	Procedures for issuance, reissuance, denial, modification, suspension or revocation of permit.....	183
445A.268	Application for permit; request to be included in permit; fees.....	183
445A.269	Notice of requirement to obtain individual permit; grant of additional time.....	184
445A.270	Petition for exclusion from permit; application for individual permit.....	184
445A.271	Termination of applicability of permit upon issuance of individual permit.....	184
445A.272	Termination of applicability of individual permit upon inclusion in general permit.....	184

#### Corrective Action

445A.273	Definitions.....	185
445A.2731	"Corrective action" defined.....	185

445A.2732	"Cost" and "costs" defined.....	185
445A.2733	"Fee" defined.....	185
445A.2734	"Major corrective site" defined.....	185
445A.2735	"Minor corrective action site" defined.....	185
445A.2736	"Operator" defined.....	186
445A.2737	"Owner" defined.....	186
445A.2738	Recovery of costs and fees: Minor sites; federal funding for leaking underground storage tanks; state funding.....	186
445A.2739	Reimbursement of costs and assessment of fees: Major sites.....	186

#### Use of Treated Effluent for Irrigation

445A.275	General requirements and restrictions.....	187
445A.276	Spray irrigation: Requirements for bacteriological quality and buffer zone limitations.....	187
445A.277	Exceptions to requirements for buffer zone and control of public access.....	188
445A.278	Drip or surface irrigation of landscape: Minimum level of disinfection.....	189
445A.279	Determining quality of effluent: Storage reservoirs excluded from treatment process.....	189
445A.280	Waiver or modification of requirements.....	189

#### Treatment Works

445A.283	Permit required to construct, install, expand or modify treatment works.....	189
445A.284	Design and construction of treatment works.....	189
445A.285	Location of treatment works.....	190
445A.286	Plants for sewage treatment: Applicability of provisions.....	190
445A.287	Plants for sewage treatment: Persons required to be certified as operators; application and fees for certification; renewal of certificate.....	190
445A.288	Plants for sewage treatment: Contract to operate program for certification of operators.....	191
445A.289	Plants for sewage treatment: Schedule for classification.....	191
445A.290	Plants for sewage treatment: Minimum grades of certification for operators.....	192
445A.291	Plants for sewage treatment: Certification of persons in responsible charge.....	192
445A.292	Plants for sewage treatment: Provisional certification of operator.....	192

#### Zones of Mixing

445A.295	Purpose.....	192
445A.296	Application.....	193
445A.297	Review of application by director.....	193
445A.298	Establishment by director.....	193
445A.299	Zone of passage.....	194
445A.300	Periodic review.....	194
445A.301	Termination.....	194
445A.302	Renewal.....	194

#### Diffuse Sources

445A.305	Definitions.....	194
445A.306	"Best practices" defined.....	194
445A.307	"Conservation district" defined.....	194
445A.308	"Conservation plan" defined.....	195
445A.309	"Diffuse source" defined.....	195
445A.310	"Municipality" defined.....	195
445A.311	"Panel" defined.....	195
445A.312	"Resources management plan" defined.....	195
445A.313	Exemptions.....	195
445A.314	Administration of controls: Delegation of authority to city or county.....	196
445A.315	Administration of controls by municipality: Written request to director.....	196
445A.316	Administration of controls by municipality: Jurisdiction.....	196
445A.317	Administration of controls by municipality: Determination of water pollution.....	196
445A.318	Administration of controls by municipality: Time to begin after determination is made.....	197
445A.319	Administration of controls by municipality: Inspection of equipment; access to waters; notice.....	197
445A.320	Administration of controls by municipality: Notice of violation; meeting with person responsible.....	197
445A.321	Administration of controls by municipality: Voluntary compliance.....	197
445A.322	Administration of controls by municipality: Involuntary compliance.....	198
445A.323	Administration of controls by municipality: Appeal by person charged with violation.....	198
445A.324	Administration of controls by municipality: Refusal to follow approved plan; order to comply.....	199
445A.325	Determination by division of new sources of water pollution.....	199
445A.326	New diffuse sources: Applicability of NAC 445A.327 and 445A.328 and this section.....	199
445A.327	New diffuse sources: Notice to municipality required.....	199

445A.328	New diffuse sources: Review of notice by municipality; recommendations.	200
445A.329	Technical assistance.	200
445A.330	Effect of provisions on division, municipality.	200
445A.331	Partial delegation of program to municipality.	200
445A.332	Evaluation of program: Notification to municipality.	201
445A.333	Evaluation of program: Remedy of problem; hearing; notice of hearing.	201
445A.334	Evaluation of program: Appeal.	201
445A.335	Resumption of administration by division; return of administration to municipality.	201
445A.336	State handbook of best management practices.	202
445A.337	Local handbooks of best management practices.	202
445A.338	Memoranda of understanding.	202
445A.339	Permit to construct or grade.	203
445A.340	Logging permits and certificates for timberland conversion.	203

#### Subdivision of Land

445A.342	Fees for review of tentative and final maps.	203
----------	--	-----

#### Notification of Release of Pollutant

445A.345	Definitions.	203
445A.346	Applicability.	204
445A.347	Notice required.	204
445A.348	Use of information in criminal prosecution.	204

### MINING FACILITIES

#### General Provisions

445A.350	Definitions.	205
445A.351	"Area of review" defined.	205
445A.352	"As-built drawings" defined.	205
445A.353	"Beneficiation" defined.	205
445A.354	"Best engineering judgment" defined.	205
445A.355	"Commission" defined.	205
445A.356	"Contaminant" defined.	205
445A.357	"Degrade" defined.	205
445A.358	"Department" defined.	206
445A.359	"Facility" defined.	206
445A.360	"Fluid management system" defined.	206
445A.361	"Ground water" defined.	206
445A.362	"Liner" defined.	206
445A.363	"Meteoric waters" defined.	206
445A.364	"Mining" defined.	206
445A.365	"Modify materially" defined.	206
445A.366	"Ore" defined.	207
445A.367	"Permanent closure" defined.	207
445A.368	"Permit" defined.	207
445A.369	"Person" defined.	207
445A.370	"Pilot facility" and "testing facility" defined.	207
445A.371	"Placer mining" defined.	207
445A.372	"Point source" defined.	207
445A.373	"Pollutant" defined.	207
445A.374	"Pool" defined.	207
445A.375	"Process component" defined.	208
445A.376	"Process fluid" defined.	208
445A.377	"Small-scale facility" defined.	208
445A.378	"Source" defined.	208
445A.379	"Stabilized" defined.	208
445A.380	"Storm event" defined.	208
445A.381	"Tailings impoundment" defined.	208
445A.382	"Temporary closure" defined.	208
445A.383	"WAD cyanide" defined.	208
445A.384	"Waters of the state" defined.	209
445A.385	"Zero discharge" defined.	209
445A.386	Adoption of publication by reference.	209
445A.387	Scope; effect of noncompliance.	209
445A.388	Appeal of action taken by department.	209

## Permits for Facilities

445A.390	Permit required; operation under existing permit.	209
445A.391	Application for permit: Preliminary meeting with representative of department.	210
445A.392	Application for permit: Construction or modification of process component; abbreviated application.	210
445A.393	Application for permit: Definition of site conditions, process materials, characteristics of waste and impacts.	210
445A.394	Application for permit: Submission; contents.	210
445A.395	Contents of application: Assessment of area of review.	211
445A.396	Contents of application: Meteorological report; analysis of samples.	211
445A.397	Contents of application: Engineering design report; specifications for fluid management system.	212
445A.398	Contents of application: Proposed operating plans.	212
445A.399	Preparation of plan for seasonal closure of process components.	213
445A.400	Initial review of application and notification of applicant; failure to provide information; submission of incorrect information.	213
445A.401	Action by department upon application.	214
445A.402	Notice of intent to issue permit or deny application.	214
445A.403	Request for hearing on application; submission of comments on draft permit.	215
445A.404	Scheduling of public hearing on application.	215
445A.405	Notice of hearing: Publication; contents.	215
445A.406	Submission of testimony at hearing.	215
445A.407	Issuance of statement responding to comments on draft permit.	215
445A.408	Action by director of department after period for public comment.	216
445A.409	Issuance and maintenance of permit; maximum term and renewal of permit.	216
445A.410	Permit for small-scale facility: Contents of application; limitation on holding; applicability of minimum design criteria.	216
445A.411	Pilot facility or testing facility: Conditions for issuance of permit.	216
445A.412	Pilot facility or testing facility: Contents of application for permit.	217
445A.413	Pilot facility or testing facility: Construction of application indicating need to conduct testing beyond 2 years.	217
445A.414	Permit for facility using physical separation methods.	217
445A.415	Granting of permit which allows lower level of engineered containment than required by minimum design criteria.	218
445A.4155	Conditions pursuant to which modification to design of facility with existing permit does not require new public notice; extension of term of existing permit disallowed.	219
445A.416	Minor modification of existing permit; modification of operating plans.	219
445A.417	Major modification of existing permit.	219
445A.418	Fee for modification of permit.	219
445A.419	Transfer of permit to new owner or operator.	220
445A.420	Renewal of permit; operation of facility pending issuance of new permit.	220

## Operation and Design of Facilities

445A.424	Limitations on degradation of water; exemptions.	220
445A.425	Process components in existence on September 1, 1989: Standards; additional monitoring.	221
445A.426	Notice of intent to commence active operation of process component.	221
445A.427	Duties of holder of permit upon construction or modification of process component.	221
445A.428	Level of containment required for placer mining or flotation facilities.	222
445A.429	Procedures required to prevent release of contaminants; requirements concerning impoundments.	222
445A.430	Stabilization of spent ore.	222
445A.431	Stabilization of tailings.	222
445A.432	Minimum design criteria: Generally.	223
445A.433	Minimum design criteria: Universal requirements; areas where ground water is near surface; proximity of new process components to dwellings; liability for degradation of water.	223
445A.434	Minimum design criteria: Leach pads and other nonimpounding surfaces designed to contain and promote horizontal flow of process fluids.	224
445A.435	Minimum design criteria: Ponds.	224
445A.436	Minimum design criteria: Vats, tanks and other containers which confine process fluids.	224
445A.437	Minimum design criteria: Tailings impoundments.	225
445A.438	Minimum design criteria: Liners.	225
445A.439	Program required to control quality of construction of liner systems.	225
445A.440	Monitoring: Site of facility.	225
445A.441	Monitoring: Procedure upon variation in parameter or element being monitored.	226
445A.442	Monitoring: Process components.	226
445A.443	Monitoring: Beneficiation process.	226
445A.444	Examples of planned and unplanned temporary closures.	227

445A.445	Procedure upon unplanned temporary closure of process component.....	227
445A.446	Permanent closure of facility.....	227
445A.447	Plans for permanent closure; sources not classified as process components.....	228

## PUBLIC WATER SYSTEMS

### Water Quality

445A.450	Definitions.....	228
445A.451	Applicability.....	229
445A.452	Construction.....	229
445A.453	Primary standards: Requirements.....	229
445A.454	Primary standards: Monitoring and analyses.....	229
445A.455	Secondary standards: General requirements; public notice.....	230
445A.456	Secondary standards: Monitoring.....	231
445A.457	Secondary standards: Analysis.....	231
445A.458	Conduct of analysis.....	231
445A.459	Methods of obtaining samples of water.....	231
445A.459S	Certification of laboratories to analyze chemical contaminants: Maintenance and availability of information for certain samples.....	232
445A.460	Certification of laboratories to analyze chemical contaminants: Bases.....	233
445A.461	Certification of laboratories to analyze chemical contaminants: Submission and review of application; review of data used to evaluate performance of laboratory.....	233
445A.462	Certification of laboratories to analyze certain primary organic and inorganic contaminants or trihalomethanes: Prerequisites.....	234
445A.463	Certification of laboratories to analyze certain primary organic and inorganic contaminants or trihalomethanes: Provisional certification; revocation.....	234
445A.464	Certification of laboratories to analyze volatile organic contaminants.....	234
445A.465	Certification of laboratories to analyze secondary contaminants: Prerequisites.....	234
445A.466	Certification of laboratories to analyze secondary contaminants: Provisional certification; revocation.....	235
445A.467	Certification of laboratories to analyze radiochemical contaminants.....	235
445A.468	Certification of laboratories to analyze chemical contaminants: Denial of application for or revocation of certification; recertification; appeal of action taken.....	235
445A.469	Certification of laboratories to analyze chemical contaminants: Evaluation of laboratory before certification; provisional certification.....	236
445A.470	Certification of laboratories to analyze chemical contaminants: Evaluations at site of laboratory after certification; submission of independent evaluations.....	236
445A.470S	Certification of laboratories to analyze chemical contaminants: Period of validity; application for renewal.....	237
445A.471	Certification of laboratories to analyze chemical contaminants: Fees; payment of certain expenses for persons who conduct evaluations.....	237
445A.472	Certification of laboratories to analyze chemical contaminants: Acceptance of data from laboratory located outside of state.....	238
445A.473	Certification of laboratories to analyze chemical contaminants: Changes in personnel, location, facilities or equipment of laboratory.....	239
445A.473S	Certification of laboratories to analyze chemical contaminants: Proposed change in or new method of analysis.....	239
445A.474	Certification of laboratories to analyze microbiological contaminants: Prerequisites.....	240
445A.475	Certification of laboratories to analyze microbiological contaminants: Procedure.....	240
445A.476	Certification of laboratories to analyze microbiological contaminants: Period of validity; application for renewal; periodic evaluations at site of laboratory after certification.....	240
445A.477	Certification of laboratories to analyze microbiological contaminants: Unannounced evaluations of laboratory.....	241
445A.478	Certification of laboratories to analyze microbiological contaminants: Requirements for maintenance of certification; failure to comply with requirements.....	241
445A.479	Certification of laboratories to analyze microbiological contaminants: Provisional certification; revocation of certification.....	242
445A.480	Certification of laboratories to analyze microbiological contaminants: Effect of provisional certification; recertification.....	242
445A.481	Certification of laboratories to analyze microbiological contaminants: Effect of revocation for particular contaminant; recertification.....	242
445A.481S	Certification of laboratories to analyze microbiological contaminants: Denial of application for or revocation of certification; appeal of action taken; recertification.....	243
445A.483	Certification of laboratories to analyze microbiological contaminants: Fees.....	243
445A.484	Certification of laboratories to analyze microbiological contaminants: Acceptance of data from laboratory located outside of state.....	243
445A.485	Reporting, public notification and recordkeeping.....	244
445A.486	Obtaining results of analyses of water supplies.....	244

445A.487	Variances: Conditions and procedure for granting.....	244
445A.488	Variances: Prescription of additional control measures and schedules for compliance.....	245
445A.489	Exemptions: Conditions and procedure for granting.....	245
445A.490	Exemptions: Prescription of control measures and schedules for compliance.....	245
445A.491	Variances and exemptions: Appeals.....	246
445A.4915	Determination of suitability for this state of revision of publication adopted by reference.....	246
445A.492	Severability.....	246

#### Treatment of Water

445A.495	Definitions.....	247
445A.496	“Coagulation” defined.....	247
445A.497	“Concentration of residual disinfectant” defined.....	247
445A.498	“Concentration times time” defined.....	247
445A.499	“Conventional filtration” defined.....	247
445A.500	“Diatomaceous earth filtration” defined.....	247
445A.501	“Direct filtration” defined.....	247
445A.502	“Disinfectant contact time” defined.....	248
445A.503	“Disinfection” defined.....	248
445A.504	“Filtration” defined.....	248
445A.505	“Flocculation” defined.....	248
445A.506	“Ground water under the direct influence of surface water” defined.....	248
445A.507	“Health division” defined.....	248
445A.508	“Heterotrophic plate count” defined.....	248
445A.509	“Level of turbidity” defined.....	248
445A.510	“Outbreak of water-borne disease” defined.....	249
445A.511	“Sedimentation” defined.....	249
445A.512	“Slow sand filtration” defined.....	249
445A.513	“Surface water” defined.....	249
445A.514	“Unit of nephelometric turbidity” defined.....	249
445A.515	“Virus” defined.....	249
445A.516	“Watershed” defined.....	249
445A.517	Applicability.....	249
445A.518	Submission of plan for compliance with requirements; date for final compliance.....	250
445A.519	Procedure for review of actions taken by health division; appeals.....	250
445A.520	General requirements for treatment.....	250
445A.521	Filtration: Acceptable methods of treatment.....	251
445A.522	Filtration: Applicable efficiencies for removal.....	251
445A.523	Filtration: Standards of performance.....	251
445A.524	Filtration: Use of alternative technology.....	251
445A.525	Filtration: Avoidance of requirements.....	252
445A.526	Standards for disinfection.....	253
445A.527	Requirements for monitoring.....	253
445A.528	Adoption of analytical methods by reference.....	254
445A.529	Submission of engineering report for system of treatment installed before November 29, 1990.....	254
445A.530	Submission of engineering report before construction or modification of facility; standards for design.....	255
445A.531	Inclusion of features for reliability in design and construction of plant.....	255
445A.532	Certification of persons operating facility.....	256
445A.533	Standards for operation of facility for filtration.....	256
445A.534	Equipment of facility for disinfection.....	257
445A.535	Requirements for plan of operations.....	257
445A.536	Maintenance of records.....	257
445A.537	Submission of monthly reports.....	258
445A.538	Events for which notification of health division required.....	259
445A.539	Periodic performance of sanitary survey of watershed; report of survey.....	259
445A.540	Requirements for notification of persons served by system.....	259

#### Bottled Water

445A.544	Definitions.....	260
445A.545	Permit required to operate plant.....	261
445A.546	Submission of plans, specifications for approval of construction or remodeling.....	261
445A.5465	Requirements for construction, design and maintenance of plant.....	261
445A.547	Permit required for distribution of water bottled outside Nevada.....	261
445A.548	Quality of water used for bottling; inspections; sampling.....	262
445A.5485	Requirements for flavor added to bottled water.....	262
445A.549	Methods used to determine compliance with standards.....	262
445A.550	Standards for bottled water: Coliform organisms.....	262
445A.551	Standards for bottled water: Physical quality.....	263

445A.552	Standards for bottled water: Chemical and organic substances.	263
445A.553	Standards for bottled water: Fluoride.	265
445A.554	Standards for bottled water: Radioactive elements.	265
445A.555	Analysis required of representative samples.	265
445A.556	Labeling requirements.	265
445A.5565	Types of bottled water.	266
445A.557	Treatment and sampling of water before bottling; inspection of equipment.	267
445A.558	Storing, cleaning and sanitizing containers and closures.	267
445A.559	Minimum requirements for sanitization.	267
445A.560	Testing required for cleaning and sanitizing solutions.	268
445A.561	Cleaning and sanitizing of facilities and equipment; requirements for tanker vehicles.	268
445A.562	Identifying code; required records.	269
445A.563	Inspection of containers and closures; requirements for disposable containers and closures.	269
445A.564	Separation of bottling rooms from other operations.	270
445A.565	Prevention of contamination of the water.	270
445A.566	Ventilation.	270
445A.567	Washing and sanitizing operations.	270
445A.568	Separation of certain rooms from those used for domestic purposes.	270
445A.569	Sources of water used in plants.	270
445A.570	Suitability of equipment and utensils; construction of surfaces contacting processed water; standards for equipment; requirements for storage tanks.	271
445A.571	Quality of pressurized air used during processing or which contacts water.	271
445A.572	Lockers and lunchrooms; storage of personal items.	271
445A.573	Sewage disposal.	272
445A.574	Piping and draining.	272
445A.575	Toilet rooms.	272
445A.576	Lavatories.	272
445A.577	Storage, disposal of garbage.	273
445A.5775	Storage of toxic materials in plant prohibited.	273
445A.578	Vermis.	273
445A.579	Flying insects.	273
445A.580	Animals prohibited in facility.	274
445A.581	Inspection of surfaces and equipment which contact treated water.	274
445A.582	Transportation, storage of sanitized containers and equipment.	274
445A.583	Storage tanks.	274
445A.5835	Training of employees.	274
445A.584	Employees with communicable diseases.	274
445A.585	Employees required to wash their hands.	274
445A.586	Cleanliness of employees' outer garments; confinement of employees' hair.	275
445A.587	Expectoration, use of tobacco, eating or drinking prohibited; personal cleanliness required.	275
445A.588	Retention and submission of records, reports and analyses.	275
445A.589	Fees.	275
445A.5893	Orders for corrective action.	276
445A.5895	Denial, modification, suspension or revocation of permit: Grounds; written notice.	276
445A.5898	Procedure for review of actions taken by health division: appeals.	276
445A.590	Severability.	277

#### Permits to Operate Privately Owned Systems

445A.595	Definitions.	277
445A.596	"Health division" defined.	277
445A.597	"Local governing body" defined.	277
445A.598	"Operator" defined.	277
445A.599	"Public water system" defined.	277
445A.600	"State engineer" defined.	277
445A.601	"Water system" defined.	277
445A.602	Requirement for permit.	277
445A.603	Application for permit: Form; conference with chief of bureau of health protection services.	278
445A.604	Application for permit: Submission; required fee and documents.	278
445A.605	Application for permit: Required financial information.	278
445A.606	Application for permit: Solicitation and consideration of written comments.	279
445A.607	Conditions for issuance of permit: Interpretation of certain statutory terms.	279
445A.608	Conditions for issuance of permit: Assumption by local governing body of certain responsibilities and duties.	279
445A.609	Conditions for issuance of permit: Payment of fees.	280
445A.610	Contents of permit.	280
445A.611	Notification of limitations or conditions on permit; public inspection of application for permit.	280



445A.612	Denial, modification, suspension or revocation of permit: Grounds; notice.	280
445A.613	Request for variance from requirements.	281
445A.614	Procedure for review of actions taken by health division; appeals.	281

#### Certification of Operators of Privately Owned Systems

445A.617	Definitions.	281
445A.618	"Advisory board" defined.	281
445A.619	"Disinfection" defined.	281
445A.620	"Ground water" defined.	282
445A.621	"Ground water under the direct influence of surface water" defined.	282
445A.622	"Health division" defined.	282
445A.623	"Public water system" defined.	282
445A.624	"Responsible charge" defined.	282
445A.625	"Surface water" defined.	282
445A.626	Requirement for certificate.	282
445A.627	Persons in responsible charge: General requirements.	282
445A.628	Persons in responsible charge: Approval of person holding certificate as operator-in-training; approval of other qualified person in emergency.	283
445A.629	Classification of public water systems.	283
445A.630	Examination for certification: Application; submission and applicability of fee; reexamination; scheduling.	285
445A.631	Examination for certification: Types; areas of examination; return to examinee; maintenance of analysis.	285
445A.632	Grading of examinations and review of qualifications for certificate.	285
445A.633	Full certificate: Issuance; qualifications.	285
445A.633S	Appropriate titles for operators in various classifications.	286
445A.634	Certification of operator certified in another state or by California/Nevada section of American Water Works Association.	286
445A.635	Certificate as operator-in-training: Issuance; subsequent issuance and expiration of full certificate.	287
445A.636	Provisional certification.	287
445A.637	Contents and expiration of certificate.	287
445A.638	Renewal of certificate: Prerequisites; compliance with requirements for continuing education.	287
445A.639	Continuing education: General requirements.	288
445A.640	Continuing education: Operator who holds full certificate and certificate as operator-in-training at higher classification than full certificate.	288
445A.641	Continuing education: Conditions for obtaining credit.	288
445A.642	Continuing education: Waiver of requirements; deemed compliance.	289
445A.643	Continuing education: Approval of course of training provided by public water system to its employees.	289
445A.644	Reinstatement of expired certificate.	289
445A.645	Recertification of operator following termination of employment.	290
445A.646	Denial of application for certificate or suspension or revocation of certificate: Grounds.	290
445A.647	Denial, suspension or revocation of certificate: Written notice.	290
445A.651	Fees of health division.	291
445A.652	Procedure for review of actions taken by health division; appeals.	291

#### Design, Construction, Operation and Maintenance

445A.6550S	Definitions.	291
445A.6551	"Absorption field" defined.	292
445A.6551S	"Acknowledgment of water service" defined.	292
445A.6552	"Air and vacuum valve" defined.	292
445A.6552S	"Air binding" defined.	292
445A.6553	"Air gap" defined.	292
445A.6553S	"Air release valve" defined.	292
445A.6554	"Alternative pumping capacity" defined.	292
445A.6554S	"Altitude control valve" defined.	293
445A.6555	"Annular space" defined.	293
445A.6555S	"Approved backflow testing laboratory" defined.	293
445A.6556	"Approved check valve" defined.	293
445A.6556S	"Appurtenances" defined.	293
445A.6557	"Aquifer" defined.	293
445A.6557S	"Atmospheric vacuum breaker" defined.	293
445A.6558	"Automatic control" defined.	294
445A.6558S	"Auxiliary supply of water" defined.	294
445A.6559	"Average day demand" defined.	294
445A.6559S	"Backfill" defined.	294
445A.6560S	"Backflow" defined.	294
445A.6561	"Backpressure" defined.	294

445A.65615	"Backsiphonage" defined.....	294
445A.6562	"Backwashing" defined.....	294
445A.65625	"Baffles" defined.....	294
445A.6563	"Bag of cement" defined.....	294
445A.65635	"Ball valve" defined.....	295
445A.6564	"Bell-shaped" defined.....	295
445A.65645	"Best available technology" defined.....	295
445A.6565	"Blowoff valve" defined.....	295
445A.65655	"Booster pump" defined.....	295
445A.6566	"Butterfly valve" defined.....	295
445A.65665	"Capacity for the development and treatment of water" defined.....	295
445A.6567	"Casing" defined.....	295
445A.65675	"Cement grout" defined.....	295
445A.6568	"Cement slurry" defined.....	295
445A.65685	"Centrifugal pump" defined.....	296
445A.6569	"Certified backflow prevention assembly tester" defined.....	296
445A.65695	"Check valve" defined.....	296
445A.65705	"Chloramines" defined.....	296
445A.6571	"Chlorination" defined.....	296
445A.65715	"Chlorinator" defined.....	296
445A.6572	"Chlorine residual" defined.....	296
445A.65725	"Class 1 fire sprinkler system" defined.....	296
445A.6573	"Class 2 fire sprinkler system" defined.....	296
445A.65735	"Class 3 fire sprinkler system" defined.....	297
445A.6574	"Class 4 fire sprinkler system" defined.....	297
445A.65745	"Class 5 fire sprinkler system" defined.....	297
445A.6575	"Class 6 fire sprinkler system" defined.....	297
445A.65755	"Clear well" defined.....	297
445A.6576	"Coating" defined.....	297
445A.65765	"Coliform bacteria" defined.....	297
445A.6577	"Commitment for water service" defined.....	298
445A.65775	"Concentric reducer" defined.....	298
445A.6578	"Concrete grout" defined.....	298
445A.65785	"Conductor casing" defined.....	298
445A.6579	"Constant discharge aquifer test" defined.....	298
445A.65795	"Contamination" defined.....	298
445A.65805	"Corporation stop" defined.....	298
445A.6581	"Cross-connection" defined.....	298
445A.65815	"Curb stop" defined.....	299
445A.6582	"Dead end" defined.....	299
445A.65825	"Determined to be compatible with drinking water" defined.....	299
445A.6583	"Disinfection" defined.....	299
445A.65835	"Distribution main" defined.....	299
445A.6584	"Distribution storage" defined.....	299
445A.65845	"Distribution system" defined.....	299
445A.6585	"Division of environmental protection" defined.....	299
445A.65855	"Double check detector check assembly" defined.....	299
445A.6586	"Double check valve assembly" defined.....	299
445A.65865	"Drive point water well" defined.....	300
445A.6587	"Dug water well" defined.....	300
445A.65875	"Eccentric reducer" defined.....	300
445A.6588	"Emergency" defined.....	300
445A.65885	"Emergency reserve" defined.....	300
445A.6589	"Engineer" defined.....	300
445A.65895	"Enteric virus" defined.....	300
445A.65905	"EPA" defined.....	300
445A.6591	"Existing public water system" defined.....	300
445A.65915	"Filtration" defined.....	300
445A.6592	"Final map" defined.....	301
445A.65925	"Finished water" defined.....	301
445A.6593	"Fire authority" defined.....	301
445A.65935	"Fire demand" defined.....	301
445A.6594	"Fire flow" defined.....	301
445A.65945	"Fire sprinkler system" defined.....	301
445A.6595	"Flapper valve" defined.....	301
445A.65955	"Flexible coupling" defined.....	301
445A.6596	"Flocculation" defined.....	301
445A.65965	"Flow detector" defined.....	302
445A.6597	"Flow proportional control" defined.....	302
445A.65975	"Fluoridation" defined.....	302
445A.6598	"Foot valve" defined.....	302
445A.65985	"Gate valve" defined.....	302

445A.6599	"Globe valve" defined.....	302
445A.65995	"Gravel pack" defined.....	302
445A.66005	"Gravity sanitary sewer" defined.....	302
445A.6601	"Gravity storm sewer" defined.....	302
445A.66015	"Grid system" defined.....	302
445A.6602	"Ground-level tank" defined.....	302
445A.66025	"Ground water" defined.....	303
445A.6603	"Ground water under the direct influence of surface water" defined.....	303
445A.66035	"Grouting" defined.....	303
445A.6604	"Head" defined.....	303
445A.66045	"Head loss" defined.....	303
445A.6605	"Header" defined.....	303
445A.66055	"Health authority" defined.....	303
445A.6606	"Health division" defined.....	303
445A.66065	"Hydropneumatic system " defined.....	303
445A.6607	"Impeller" defined.....	303
445A.66075	"Isolation valve" defined.....	303
445A.6608	"Jetted water well" defined.....	304
445A.66085	"Lead-free" defined.....	304
445A.6609	"Lineshaft turbine pump" defined.....	304
445A.66095	"Lining" defined.....	304
445A.66105	"Manual of operations and maintenance" defined.....	304
445A.6611	"Maximum day demand" defined.....	304
445A.66115	"Mechanical joint" defined.....	304
445A.6612	"Mechanical seal" defined.....	304
445A.66125	"Mesh" defined.....	305
445A.6613	"Meter box" defined.....	305
445A.66135	"Meter stop" defined.....	305
445A.6614	"mg/l" defined.....	305
445A.66145	"Microscopic particulate analysis" defined.....	305
445A.6615	"Neat cement" defined.....	305
445A.66155	"Network hydraulic analysis" defined.....	305
445A.6616	"New public water system" defined.....	305
445A.66165	"Nominal size" defined.....	305
445A.6617	"Operating storage" defined.....	305
445A.66175	"Overflow rim" defined.....	305
445A.6618	"Packing" defined.....	306
445A.66185	"Peak hour demand" defined.....	306
445A.6619	"Pet cock" defined.....	306
445A.66195	"pH" defined.....	306
445A.66205	"Pipe sleeve" defined.....	306
445A.6621	"Pitless adapter" defined.....	306
445A.66215	"Plunge pool" defined.....	306
445A.6622	"Point-of-entry treatment device" defined.....	306
445A.66225	"Point-of-use treatment device" defined.....	306
445A.6623	"Pollution" defined.....	306
445A.66235	"ppm" defined.....	307
445A.6624	"Pressure regulator" defined.....	307
445A.66245	"Pressure relief valve" defined.....	307
445A.6625	"Pressure vacuum breaker" defined.....	307
445A.66255	"Primary standard" defined.....	307
445A.6626	"Prime mover" defined.....	307
445A.66265	"Priming" defined.....	307
445A.6627	"Prohibited water well" defined.....	307
445A.66275	"Properly certified laboratory" defined.....	307
445A.6628	"psi" defined.....	307
445A.66285	"Public water system" defined.....	307
445A.6629	"PVC" defined.....	308
445A.66295	"Raw water" defined.....	308
445A.66305	"Reaction blocking" defined.....	308
445A.6631	"Reduced pressure detector assembly" defined.....	308
445A.66315	"Reduced pressure principle assembly" defined.....	308
445A.6632	"Reducer" defined.....	308
445A.66325	"Residential equivalent" defined.....	308
445A.6633	"Residual flow control" defined.....	309
445A.66335	"Residual pressure" defined.....	309
445A.6634	"Sanitary seal " defined.....	309
445A.66345	"Sanitary sewer " defined.....	309
445A.6635	"Sanitary survey" defined.....	309
445A.66355	"Seal water" defined.....	309
445A.6636	"Secondary standard" defined.....	309
445A.66365	"Sedimentation" defined.....	309

445A.6637	"Self-priming pump" defined.	309
445A.66375	"Service connection" defined.	310
445A.6638	"Service line" defined.	310
445A.66385	"Set point" defined.	310
445A.6639	"Sewer line" defined.	310
445A.66395	"Sewer main" defined.	310
445A.66405	"Sewer service lateral" defined.	310
445A.6641	"Silt stop" defined.	310
445A.66415	"Spool" defined.	310
445A.6642	"Spring" defined.	310
445A.66425	"Step drawdown test" defined.	310
445A.6643	"Stop and waste valve" defined.	311
445A.66435	"Storage structure" defined.	311
445A.6644	"Storage tank" defined.	311
445A.66445	"Storm sewer" defined.	311
445A.6645	"Stuffing box" defined.	311
445A.66455	"Subdivision" defined.	311
445A.6646	"Submersible pump" defined.	311
445A.66465	"Suction head" defined.	311
445A.6647	"Suction lift" defined.	311
445A.66475	"Suction well" defined.	311
445A.6648	"Supplier of water" defined.	311
445A.66485	"Surface water" defined.	311
445A.6649	"Surge arrestor" defined.	312
445A.66495	"Surge pressure" defined.	312
445A.66505	"Tentative map" defined.	312
445A.6651	"Thrust anchor" defined.	312
445A.66515	"Thrust block" defined.	312
445A.6652	"Total capacity" defined.	312
445A.66525	"Treatment facility" defined.	312
445A.6653	"Tree system" defined.	312
445A.66535	"Uniform Plumbing Code" defined.	312
445A.6654	"Union" defined.	312
445A.66545	"Vacuum breaker" defined.	313
445A.6655	"Valve box" defined.	313
445A.66555	"Volute" defined.	313
445A.6656	"Wastewater" defined.	313
445A.66565	"Wastewater force main" defined.	313
445A.6657	"Wastewater lift station" defined.	313
445A.66575	"Water hammer" defined.	313
445A.6658	"Water main" defined.	313
445A.66585	"Water project" defined.	313
445A.6659	"Water service lateral" defined.	314
445A.66595	"Water well" defined.	314
445A.66605	"Well yield" defined.	314
445A.6661	"Zone of pressure" defined.	314
445A.66615	Purposes of provisions.	314
445A.6662	Applicability of provisions.	314
445A.66625	Severability of provisions.	314
445A.6663	Adoption of standards and publications by reference.	314
445A.66635	Health division: Payment of fees.	316
445A.6664	Health division: Fees.	316
445A.66645	Administrative review of action taken by health division.	317
445A.6665	Special exceptions to provisions.	317
445A.66655	Responsibilities of supplier of water and customer.	317
445A.6666	Prerequisites to approval of tentative and final map for proposed subdivision.	318
445A.66665	Plan for restoration of services in emergency.	318
445A.6667	Manual of operations and maintenance.	318
445A.66675	System for control of corrosion.	318
445A.6668	Program for assessment of sources of ground water for vulnerability to contamination.	319
445A.66685	Standards for design and construction of system.	319
445A.6669	Prerequisites to commencement of water project; waiver of prerequisites; exceptions.	319
445A.66695	Application for approval of water project.	320
445A.66705	Preparation of plans, specifications and design reports for water project: Duties of engineer.	320
445A.6671	Approval of water project: Prerequisites; effective period; revocation.	321
445A.66715	Performance and inspection of work on water project; certification of substantial compliance with approved plans and specifications.	321
445A.6672	Existing systems: Minimum capacities; minimum pressure and velocity of water; total capacity of ground-water system; timely completion of water projects.	321
445A.66725	Existing systems: Determination of total capacity; preparation, maintenance and dissemination of certain information, analyses, plans and reports.	322

445A.6673	Existing systems: Evaluation, justification and design of proposed water project.	322
445A.66735	New systems: Capacity for development and treatment of water.	322
445A.6674	Storage capacity.	323
445A.66745	Operating storage.	323
445A.6675	Emergency reserve.	323
445A.66755	Existing systems: Exemption from storage requirements.	323
445A.6676	Development and treatment of sources of water: General requirements.	324
445A.66765	Treatment facilities: General requirements; use of point-of-entry or point-of-use treatment devices: prerequisites to selection of design.	324
445A.6677	Treatment facilities: Prerequisites to use.	324
445A.66775	Treatment facilities: Selection of site.	324
445A.6678	Treatment facilities: Determination of necessary amount of redundancy.	325
445A.66785	Treatment facilities: Design and construction.	325
445A.6679	Treatment facilities: Designation of piping and valves; schematic diagram for control of processes.	325
445A.66795	Treatment facilities: Submission of information regarding application of chemicals.	325
445A.66805	Treatment facilities: Quality of chemicals; labeling of containers for shipping chemicals; storage of chemicals.	326
445A.6681	Treatment facilities: Safety and efficiency.	326
445A.66815	Treatment facilities: Disposal of waste.	326
445A.6682	Fluoridation.	327
445A.66825	Disinfection of water: General requirements.	327
445A.6683	Disinfection of water: Chlorination.	328
445A.66835	Use of gaseous chlorine: Training of personnel; compliance with requirements for safety; ensuring continuous disinfection.	329
445A.6684	Use of gaseous chlorine: Location, storage and maintenance of equipment.	329
445A.66845	Use of gaseous chlorine: Chlorine room.	329
445A.6685	Use of sodium hypochlorite.	330
445A.66855	Water wells: General requirements.	330
445A.6686	Water wells: Establishment of redundant capacity for development and treatment of water.	331
445A.66865	Water wells: Location.	331
445A.6687	Water wells: Prohibited types.	331
445A.66875	Water wells: Documentation of right to divert water.	331
445A.6688	Water wells: Determination and reporting of yield characteristics of well.	331
445A.66885	Water wells: Prerequisites to use after construction, modification or reconditioning.	332
445A.6689	Water wells: Casing.	332
445A.66895	Water wells: Prevention of pollution and contamination.	333
445A.66905	Water wells: Seals and coatings.	333
445A.6691	Water wells: Construction near certain other sources of water.	333
445A.66915	Water wells: Slabs and pedestals; construction with lineshaft turbine pump or submersible pump.	334
445A.6692	Water wells: Access port or sounding tube; vent.	334
445A.66925	Water wells: Pumping to system for waste.	335
445A.6693	Water wells: Sampling tap.	335
445A.66935	Springs: General requirements.	335
445A.6694	Springs: Prerequisites to development; reports after development; approval for use.	335
445A.66945	Springs: Establishment of zone of protection.	336
445A.6695	Springs: Allowance of source of pollution or contamination within zone of protection.	336
445A.66955	Springs: Covering of device for collection of water.	336
445A.6696	Springs: Development.	337
445A.66965	Pumping facilities: General requirements.	337
445A.6697	Pumping facilities: Location of pumping stations.	337
445A.66975	Pumping facilities: Construction of sites for pumping stations.	337
445A.6698	Pumping facilities: Intakes.	338
445A.66985	Pumping facilities: Housing of pumping stations.	338
445A.6699	Pumping facilities: Suction wells and clear wells.	338
445A.66995	Pumping facilities: Pumps.	339
445A.67005	Pumping facilities: Priming.	339
445A.6701	Pumping facilities: Booster pumps.	339
445A.67015	Pumping facilities: Alarm system.	339
445A.6702	Pumping facilities: General requirements for piping system.	340
445A.67025	Pumping facilities: Suction piping.	340
445A.6703	Pumping facilities: Discharge piping.	341
445A.67035	Pumping facilities: Gauges and meters.	341
445A.6704	Pumping facilities: Seal water.	342
445A.67045	Pumping facilities: Controls.	342
445A.6705	Pumping facilities: Power.	342
445A.67055	Pumping facilities: Heating, ventilation and lighting.	342
445A.6706	Pumping facilities: Hydropneumatic systems.	343
445A.67065	Storage structures: General requirements.	343
445A.6707	Storage structures: Clear wells.	343

445A.67075	Storage structures: Materials.....	344
445A.6708	Storage structures: Design and construction.....	345
445A.6708S	Storage structures: Coatings; disinfection.....	346
445A.6709	Storage structures: Security and safety.....	346
445A.6709S	Storage structures: Drainage; protection from pollution and contamination.....	347
445A.6710S	Distribution system: General requirements.....	347
445A.6711	Distribution system: Pressure.....	347
445A.6711S	Distribution system: Design; diameter of water mains; connection to fire hydrant.....	347
445A.6712	Distribution system: Dead ends.....	348
445A.6712S	Distribution system: Materials.....	348
445A.6713	Distribution system: Isolation valves.....	348
445A.6713S	Distribution system: Release and blowoff valves.....	349
445A.6714	Distribution system: Chambers, vaults, pits and manholes.....	349
445A.6714S	Distribution system: Construction.....	349
445A.6715	Separation of lines: Definitions.....	350
445A.6715S	Separation of lines: Sewer main parallel to water main or water service lateral.....	350
445A.6716	Separation of lines: Sewer service lateral parallel to water main or water service lateral.....	351
445A.6716S	Separation of lines: Sewer main crossing water main.....	351
445A.6717	Separation of lines: Sewer main crossing water service lateral.....	352
445A.6717S	Separation of lines: Sewer service lateral crossing water main or water service lateral.....	352
445A.6718	Separation of lines: Lines across surface water.....	352
445A.6718S	Cross-connections and backflow: General requirements.....	353
445A.6719	Cross-connections and backflow: Assemblies for prevention of backflow.....	354
445A.6719S	Cross-connections and backflow: Minimum types of protection for particular service connections.....	354
445A.6720S	Cross-connections and backflow: Minimum types of protection for service connection to auxiliary supply of water or irrigation system.....	356
445A.6721	Cross-connections and backflow: Minimum types of protection for other service connections; resolution of conflicting requirements; imposition of more stringent requirements.....	356
445A.6721S	Cross-connections and backflow: Service connection to fire sprinkler system.....	356
445A.6722	Cross-connections and backflow: Design of fire sprinkler system.....	357
445A.6722S	Cross-connections and backflow: Conditions to provision of service to certain fire sprinkler systems.....	357
445A.6723	Cross-connections and backflow: Installation of air gap.....	357
445A.6723S	Cross-connections and backflow: Installation of reduced pressure principle assembly.....	358
445A.6724	Cross-connections and backflow: Installation of double check valve assembly.....	358
445A.6724S	Cross-connections and backflow: Duties of certified backflow prevention assembly tester.....	359
445A.6725	Cross-connections and backflow: Use of vacuum breakers.....	359
445A.6725S	Cross-connections and backflow: Restrictions on use of certain valves and piping assemblies.....	360
445A.6726	Disinfection of facility for collection, treatment or distribution of water.....	360
445A.6726S	Duties after loss of pressure in distribution system.....	360
445A.6727	Requirements after cleaning or repair of water main.....	360
445A.6727S	Water hauling: Definitions.....	360
445A.6728	Water hauling: General requirements.....	361
445A.6728S	Water hauling: Sanitation and disinfection.....	361
445A.6729	Water hauling: Log of activities.....	362
445A.6729S	Water hauling: Construction of equipment.....	362
445A.6730S	Water hauling: Marking of vehicles.....	363
445A.6731	Water hauling: Equipment of vehicles for disinfection and testing.....	363

## FINANCIAL ASSISTANCE FOR CONSTRUCTION OF WASTEWATER TREATMENT WORKS AND POLLUTION CONTROL PROJECTS

### General Provisions

445A.685	Definitions.....	363
445A.686	"Act" defined.....	363
445A.687	"Alternative" defined.....	363
445A.688	"Best practicable waste treatment technology" defined.....	364
445A.689	"Building" defined.....	364
445A.690	"Categorical exclusion" defined.....	364
445A.691	"Combined sewer" defined.....	364
445A.692	"Completion" defined.....	364
445A.693	"Construction" defined.....	364
445A.694	"Conventional" defined.....	365
445A.695	"Department" defined.....	365
445A.696	"Director" defined.....	365
445A.697	"Disadvantaged business" defined.....	365

445A.698	"Division" defined.	365
445A.699	"Enforceable requirements of the Act" defined.	365
445A.700	"Environmental assessment" defined.	365
445A.701	"Environmental impact statement" defined.	366
445A.702	"Excessive infiltration or inflow" defined.	366
445A.703	"Facility plan" defined.	366
445A.704	"Finding of no significant impact" defined.	366
445A.705	"Fund" defined.	366
445A.706	"Infiltration" defined.	366
445A.707	"Inflow" defined.	366
445A.708	"Innovative" defined.	366
445A.709	"Interceptor sewer" defined.	367
445A.710	"Maintenance" defined.	367
445A.711	"Mitigation" defined.	367
445A.712	"Municipality" defined.	367
445A.713	"Nonpoint source" defined.	368
445A.714	"Operation" defined.	368
445A.715	"Operation and maintenance" defined.	368
445A.716	"Person" defined.	368
445A.717	"Pollution" defined.	368
445A.718	"Pollution control project" defined.	368
445A.719	"Priority list" defined.	368
445A.720	"Project" defined.	368
445A.721	"Recipient" defined.	369
445A.722	"Replacement" defined.	369
445A.723	"Sanitary sewer" defined.	369
445A.724	"Storm sewer" defined.	369
445A.725	"Treatment works" defined.	369
445A.726	"User charge" defined.	369
445A.727	"Wastewater" defined.	369
445A.728	Purpose and use of revolving fund created pursuant to Clean Water Act.	370
445A.729	Effect of review or approval of documents by or for division.	370
445A.730	Resolution of disputes concerning administration of provisions.	370

#### Preliminary Planning of Projects

445A.733	Proposed wastewater treatment works: Contents of facility plan.	370
445A.734	Proposed wastewater treatment works: Cost-effect analysis.	371
445A.735	Proposed pollution control projects: Contents of facility plan.	372
445A.736	Proposed pollution control projects: Cost-effect analysis.	373
445A.737	Requirements for facility plan.	373
445A.738	Public hearing before adoption of facility plan.	373
445A.739	Submission of facility plan to division.	373

#### Environmental Review of Proposed Projects

445A.742	Steps in process of environmental review.	374
445A.743	Duties of division.	374
445A.744	Categorical exclusion: Determination by division; criteria for granting; request for exclusion of additional categories.	374
445A.745	Categorical exclusion: Public notice.	375
445A.746	Categorical exclusion: Review.	375
445A.747	Commitment of financial assistance.	375
445A.748	Review of completed facility plan; environmental assessment.	375
445A.749	Determination of whether to issue finding of no significant impact or to initiate preparation of environmental impact statement.	376
445A.750	Partitioning of environmental review for components of project.	377
445A.751	Finding of no significant impact: Issuance; notice.	377
445A.752	Finding of no significant impact: Review.	378
445A.753	Provision of financial assistance following finding of no significant impact.	378
445A.754	Environmental impact statement: When required.	378
445A.755	Environmental impact statement: Procedure for preparing.	379
445A.756	Environmental impact statement: Public notice; distribution of draft.	379
445A.757	Environmental impact statement: Review of draft.	380
445A.758	Environmental impact statement: Fee for copies of documents.	380
445A.759	Environmental impact statement: Public hearing.	380
445A.760	Additional procedures for securing public participation.	380
445A.761	Preparation of final environmental impact statement.	380
445A.762	Approval of facility plan: Record of decision; provision of financial assistance.	380

## Awarding of Financial Assistance

445A.765	Establishment and use of priority list.....	381
445A.766	Establishment of reserves.....	381
445A.767	Use of and requirements for priority system.....	381
445A.768	Revision of priority system and priority list; public hearings.....	382
445A.769	Requirements for initial approval of financial assistance.....	382
445A.770	Documents required; contracts for financial assistance; subsequent design reviews.....	382
445A.771	Examination of plans and specifications; submission of documents for review.....	383
445A.772	Submission of agreements regarding projects intended to serve two or more municipalities.....	383
445A.773	Provision of financial assistance to help offset costs.....	383
445A.774	Conditions of financial assistance and repayment.....	384
445A.775	Fee for award of financial assistance.....	384

## Requirements for Projects

445A.777	Certification of compliance with requirements of federal law.....	384
445A.778	Consistency of project with water quality management plan.....	384
445A.779	Adoption of accounting standards by reference; maintenance of separate project accounts.....	385
445A.780	Maintenance of records and accounts.....	385
445A.781	Audit of financial records relating to project.....	385
445A.782	Use of value engineering.....	385
445A.783	Projects involving collection system work.....	386
445A.784	Assurance of access to privately owned individual system.....	386
445A.785	Amount of infiltration and inflow into sewer system.....	386
445A.786	Approval of system of user charges or ordinance governing sewer use.....	386
445A.787	Requirements for ordinance governing sewer use.....	387
445A.788	Requirements for system of user charges.....	387
445A.789	Adoption of system of user charges.....	387
445A.790	Effect of system of user charges on inconsistent agreements.....	387
445A.791	Periods for adoption and implementation of sewer use ordinance and system of user charges.....	387
445A.792	Approval of award of contract for construction relating to project; resolution of disputes regarding bidding.....	388
445A.793	Period for award of prime construction contract; extension of period.....	388
445A.794	Compliance with federal and state law regarding labor and wages.....	388
445A.795	Participation by disadvantaged businesses: Generally.....	388
445A.796	Participation by disadvantaged businesses: Awarding of subcontracts.....	389
445A.797	Notification of division regarding steps in construction and beginning of operation of project.....	389
445A.798	Entry by representative of division onto site of project.....	389
445A.799	Oversight inspections; final construction inspection.....	389
445A.800	Submission of copies of change orders.....	390
445A.801	Submission and approval of operation and maintenance manual for project.....	390
445A.802	Submission of set of as-built drawings of project.....	390
445A.803	Certification of performance of project; corrective action.....	390
445A.804	Notification of claims arising from or related to project.....	391
445A.805	Approval required to abandon, discontinue use of or dispose of project.....	391

## UNDERGROUND INJECTION CONTROL

### Definitions

445A.810	Definitions.....	391
445A.811	"Application" defined.....	391
445A.812	"Aquifer" defined.....	391
445A.813	"Area of review" defined.....	391
445A.814	"Casing" defined.....	391
445A.815	"Catastrophic collapse" defined.....	391
445A.816	"Cementing" defined.....	392
445A.817	"Confining zone" defined.....	392
445A.818	"Contaminant" defined.....	392
445A.819	"Degrade" defined.....	392
445A.820	"Department" defined.....	392
445A.821	"Director" defined.....	392
445A.822	"Fault" defined.....	392
445A.823	"Fluid" defined.....	392
445A.824	"Formation" defined.....	392
445A.825	"Ground water" defined.....	393



445A.826	"Hazardous waste" defined.	393
445A.827	"Injection well" defined.	393
445A.828	"Mechanical integrity" defined.	393
445A.829	"Packer" defined.	393
445A.830	"Permit" defined.	393
445A.831	"Person" defined.	393
445A.832	"Plugging" defined.	393
445A.833	"Radioactive waste" defined.	393
445A.834	"Stimulation of a well" defined.	394
445A.835	"Subsidence" defined.	394
445A.836	"Total dissolved solids" defined.	394
445A.837	"Underground source of drinking water" defined.	394
445A.838	"Well" defined.	394
445A.839	"Zone for injection" defined.	394
445A.840	"Zone of endangering influence" defined.	394

#### General Provisions

445A.842	Applicability of regulations.	395
445A.843	Applicable standards of other governmental agencies.	395
445A.844	Classes of injection wells.	395
445A.845	Class I wells.	395
445A.846	Class II wells.	395
445A.847	Class III wells.	395
445A.848	Class IV wells.	396
445A.849	Class V wells.	396
445A.850	Injection of fluid that degrades quality of aquifer prohibited; exemption of aquifer by director.	396
445A.851	Criteria for determining exemption of aquifer.	397
445A.852	Identification of exempted aquifers.	397
445A.853	Exemption terminated when well abandoned; exception.	397
445A.854	List of exempted aquifers.	397
445A.855	Specific aquifers exempted.	397
445A.856	Prohibited wells and injections.	398
445A.857	Prohibited wells: Report by owner or operator.	398
445A.858	Prohibited wells: Abandonment and plugging; monitoring.	398
445A.859	Certification of documents submitted to director.	399
445A.860	Confidentiality of information submitted to director.	399
445A.861	Complaint of violation; investigation.	399
445A.862	Enforcement of regulations.	399

#### Permits for Underground Injection

445A.865	Purpose of issuing permits: no vested right acquired by holder.	399
445A.866	Effect of permit issued by Environmental Protection Agency.	400
445A.867	Application for permit.	400
445A.868	Information required in application for Class II well.	401
445A.869	Modification of information required in application for Class V well.	401
445A.870	Information required in application for Class III well that necessitates exemption for aquifer.	401
445A.871	Bond required.	401
445A.872	Fees.	402
445A.873	Notification whether application complete; submission of additional information.	403
445A.874	Preparation of documents by director when application is complete.	403
445A.875	Public notice of tentative action on application for permit.	403
445A.876	Contents of public notice.	403
445A.877	Public hearing and comments concerning tentative action on application for permit; notice of hearing.	404
445A.878	Statement by director responding to comments concerning tentative action on application for permit.	404
445A.879	Period for issuance or denial of permit.	405
445A.880	Expiration of permit.	405
445A.881	Transfer of permit.	405
445A.882	Renewal of permit.	405
445A.883	Permit for certain groups of wells.	405
445A.884	Single permit for facilities otherwise required to obtain additional permits.	405
445A.885	Modification, revocation, suspension or denial of permit.	405
445A.886	Submission of information requested by director.	406
445A.887	Permit for Class V well may contain less stringent requirements.	406
445A.888	Inclusion in permit of schedule for compliance.	406
445A.889	Notice to director of failure to comply with terms of permit.	406
445A.890	Issuance of temporary permit.	406

445A.891	General permits: Eligible types of wells.	407
445A.892	General permits: Description of geographic area.	407
445A.893	General permits: Regulation of category of wells.	407
445A.894	General permits: Requiring holder to obtain individual permit.	408
445A.895	General permits: Public notice and opportunity for hearing.	408
445A.896	General permits: Modification, suspension or revocation.	408
445A.897	Area of review: Definition.	408
445A.898	Area of review: Increase or decrease by director.	408
445A.899	Identification of known wells and analysis of pressure; plan for corrective action.	408
445A.900	Action by director on plan for corrective action.	409
445A.901	Applicant to report improperly completed, plugged or abandoned well; correction of condition.	409

#### Construction, Operation, Monitoring and Abandonment

445A.905	Construction prohibited without permit.	409
445A.906	Compliance with permit; minimization or correction of adverse impact on environment.	409
445A.907	Power of director to suspend or halt construction or operation.	410
445A.908	Location and construction of well.	410
445A.909	Submission and contents of notice of completion; approval or denial of permission to initiate injection.	410
445A.910	Factors for determining logging and testing requirements for Class II wells.	411
445A.911	Limitations on location and pressure of injection; authorizing fracturing in zone for injection.	411
445A.912	Analysis of injected fluid.	412
445A.913	Frequency of monitoring.	412
445A.914	Placement of wells for monitoring Class III wells.	412
445A.915	Analysis of wells for monitoring Class III wells.	412
445A.916	Tests for mechanical integrity: Frequency.	412
445A.917	Tests for mechanical integrity: Methods for evaluating absence of leaks.	412
445A.918	Tests for mechanical integrity: Methods for determining absence of movement of fluid.	413
445A.919	Tests for mechanical integrity: Alternative methods.	413
445A.920	Loss of or failure to demonstrate mechanical integrity.	413
445A.921	Filing reports from monitoring and results of periodic tests.	413
445A.922	Retention of records from monitoring.	413
445A.923	Plugging and abandonment: Plan; notice; procedure; certification.	414
445A.924	When well is deemed abandoned.	414
445A.925	Plugging of well determined to be abandoned.	414

**NAC 445A.110 "Toxic material" defined.**

1. "Toxic material" means any pollutant or combination of pollutants which will, on the basis of information available to the administrator, cause an organism or its offspring to die or to suffer any:

- (a) Disease;
- (b) Behavioral abnormality;
- (c) Cancer;
- (d) Genetic mutation;
- (e) Physiological malfunction, including a malfunction in reproduction; or
- (f) Physical deformation,

if that pollutant or combination of pollutants is discharged and exposed to or assimilated by the organism, whether directly from the environment or indirectly through food chains.

2. The term includes any disease-causing agent having the characteristics described in subsection 1.

[Environmental Comm'n, Water Pollution Control Reg. § 1.35, eff. 5-2-78; A 1-25-79]—(NAC A 9-26-90)—(Substituted in revision for NAC 445.108)

**NAC 445A.111 "Treatment or waste treatment" defined.** "Treatment or waste treatment" means the stabilization or alteration of the quality of waste waters by physical, biological or chemical means or a combination thereof, for the purpose of reducing or eliminating adverse effects on water quality, such that the tendency of the wastes to cause any degradation in water quality or other environmental conditions is reduced or eliminated.

[Environmental Comm'n, Water Pollution Control Reg. § 1.36, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.109)

**NAC 445A.112 "Treatment works" defined.** "Treatment works" has the meaning ascribed to it in NRS 445A.410.

[Environmental Comm'n, Water Pollution Control Reg. §§ 1.37-1.37.5, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.110)

**NAC 445A.113 "Water quality standards or limitations" defined.** "Water quality standards or limitations" means any applicable state or federal water quality standards or limitations, including but not limited to water quality criteria, water use classifications, implementation plans and compliance schedules, effluent standards and limitations, prohibitions, standards of performance and pretreatment standards.

[Environmental Comm'n, Water Pollution Control Reg. § 1.38, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.111)

**NAC 445A.114 "Waters of the state" defined.** "Waters of the state" has the meaning ascribed to it in NRS 445A.415.

[Environmental Comm'n, Water Pollution Control Reg. § 1.39, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.112)

**NAC 445A.115 "Zone of mixing" defined.** "Zone of mixing" means the volume of water near the point of waste discharge within which the waste immediately mixes with the receiving water due to the momentum of the waste discharge and the difference in density between the waste and the receiving water.

[Environmental Comm'n, Water Pollution Control Reg. § 1.40, eff. 5-2-78; A 1-25-79]—(Substituted in revision for NAC 445.113)

**NAC 445A.116 "Zone of passage" defined.** "Zone of passage" means a continuous water route of the volume, cross-sectional area and quality necessary to allow passage of aquatic life without any significant effect produced on the aquatic life.

[Environmental Comm'n, Water Pollution Control Reg. § 1.41, eff. 5-2-78; A 1-25-79; renumbered as Art. 1 § b, 7-2-80]—(Substituted in revision for NAC 445.114)

**NAC 445A.117 Severability.** If any of the provisions of NAC 445A.070 to 445A.340, inclusive, or any application thereof to any person, thing or circumstance is held invalid, it is intended that the invalidity not affect the remaining provisions or their application that can be given effect without the invalid provision or application.

[Environmental Comm'n, Water Pollution Control Reg. Art. 5, eff. 5-2-78]—(NAC A 10-3-96)

### **Standards for Water Quality**

**NAC 445A.119 Criteria for water quality for designated beneficial uses.** The water quality criteria for designated beneficial uses for the various waters of the state are in the following table. The criteria are water quality characteristics based upon available scientific and technical information and are to be used as guidelines in establishing water quality standards.

WATER QUALITY CRITERIA FOR  
DESIGNATED BENEFICIAL USES<sup>2</sup>

Beneficial Uses	Parameter	Agricultural Use		Aquatic Life								
		Irrigation <sup>a</sup>	Watering of Livestock	Cold Water Propa- gation	Warm Water Put & Take	Propa- gation	Put & Take	Water Contact Recreation	Non-Contact Recreation	Municipal or Domestic Supply	Industrial Supply	Propagation of Wildlife
Temperature °C		A	A	Site Specific Determination <sup>a,b</sup>				15-14 <sup>a</sup>	A	A	A	A
pH Units												
Single Value		4.5-9.0 <sup>a,b</sup>	5.0-9.0 <sup>b</sup>	6.5-9.0 <sup>b</sup>	6.5-9.0 <sup>b</sup>	6.5-9.0 <sup>b</sup>	6.5-9.0 <sup>b</sup>	6.5-8.3 <sup>a</sup>	A	5.0-9.0	10-11.7 <sup>b</sup>	7.0-9.2 <sup>a</sup>
Dissolved Oxygen												
Single Value-mg/l	>	A	Aerobic <sup>b</sup>	5.0 <sup>b</sup>	5.0 <sup>b</sup>	5.0 <sup>b</sup>	5.0 <sup>b</sup>	Aerobic <sup>b</sup>	Aerobic <sup>b</sup>	Aerobic <sup>b</sup>	A	Aerobic <sup>b</sup>
Chlorides												
Single Value-mg/l	<	Y <sup>a</sup>	1500 <sup>f</sup>	A	A	A	A	A	A	250/400 <sup>c</sup>		1500 <sup>f</sup>
Total Phosphates as P				Site Specific Determination <sup>a,b</sup>							A	A
Single Value-mg/l		A	A									
Nitrates as N												
Single Value-mg/l	<	A	100 <sup>a</sup>	Y <sup>b</sup>	A	90 <sup>b</sup>	90 <sup>b</sup>	A	A	10 <sup>b,c</sup>	A	100 <sup>a</sup>
Nitrites as N												
Single Value-mg/l	<	A	10 <sup>a</sup>	0.06 <sup>b</sup>	A	A	A	A	A	1.0 <sup>a,b</sup>	A	10 <sup>a</sup>
Total Nitrogen as N				Site Specific Determination <sup>a,b</sup>							A	A
Single Value-mg/l		A	A									
Un-ionized Ammonia as NH <sub>3</sub>												
Single Value-mg/l	<	A	A	0.02 <sup>b,c</sup>	Site Specific Determination			A	A	0.5 (Total NH <sub>3</sub> , N) <sup>b</sup>	A	A
Total Dissolved Solids												
Single Value-mg/l	<	A	3000 <sup>a</sup>	A	A	A	A	A	A	500/1000 <sup>c</sup>	A	A
Color (PT CO), Single Value	<	A	A	A	A	A	A	A	A	75 <sup>b</sup>	A	A
Turbidity, Single Value NTU	<	A	A	10 <sup>d</sup>	10 <sup>d</sup>	50 <sup>d</sup>	50 <sup>d</sup>	A	A	Y <sup>b</sup>	A	A
Fecal Coliform (MP/100ml) Geometric Mean	<	1000 <sup>a</sup>	1000 <sup>a</sup>	A	A	A	A	200/400 <sup>b</sup> See Footnote <sup>1</sup>	1000/2000 <sup>d</sup>	2000 <sup>a</sup>	A	1000 <sup>a</sup>
Alkalinity as CaCO <sub>3</sub> Single Value-mg/l		A	A	Less than 25% change from natural conditions <sup>a,c</sup>				A	A	A	A	10-130 <sup>a</sup>
Suspended Solids Single Value-mg/l	<	A	A	25-80 <sup>a</sup>	25-80 <sup>a</sup>	25-80 <sup>a</sup>	25-80 <sup>a</sup>	A	A	A	A	A
Sulfate Single Value-mg/l	<	A	A	A	A	A	A	A	A	250 <sup>b</sup> /500 <sup>c</sup>	A	A

## FOOTNOTES AND REFERENCES

- < means less than
- > means greater than
- x means a specific recommendation has not been developed.
- y means the cited reference recommended no value be established.

(1) Based on a minimum of five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

(2) The table is not all-inclusive. As the need arises and data becomes available, appropriate revisions and additions will be made.

a. National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).

b. U.S. Environmental Protection Agency, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (1976). Office of Water and Hazardous Materials, Washington, D.C.

c. Nevada Division of Health, Water Supply Regulation, Part I, Water Quality Standards, Monitoring, Record Keeping and Reporting (1977). State Board of Health, Carson City, Nevada.

d. Report of the Commission on Water Quality Criteria (FWPCA) (Green Book) (1968).

e. American Fisheries Society, Water Quality Section, A Review of the EPA Red Book: Quality Criteria for Water (1979).

f. McKee and Wolf, California State Water Resources Control Board, Water Quality Criteria (1963).

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.4, eff. 9-15-80]—(NAC A 7-27-82; 12-3-84; 9-25-90)—(Substituted in revision for NAC 445.117)

### **NAC 445A.120 Applicability.**

1. NAC 445A.120 to 445A.213, inclusive, apply to all natural streams and lakes, reservoirs or impoundments on natural streams and other specified waterways, unless excepted on the basis of existing irreparable conditions which preclude such use. Man-made waterways, unless otherwise specified, must be protected for public health and the use for which the waterways were developed.

2. The quality of any waters receiving waste discharges must be such that no impairment of the beneficial usage of water occurs as the result of the discharge. Natural water conditions may, on occasion, be outside the limits established by standards. The standards adopted in NAC 445A.120 to 445A.213, inclusive, relate to the condition of waters as affected by discharges relating to the activities of man.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.118)

**NAC 445A.121 Standards applicable to all waters.** The following standards are applicable to all waters of the state:

1. Waters must be free from substances attributable to domestic or industrial waste or other controllable sources that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent or odorous or in amounts sufficient to interfere with any beneficial use of the water.

2. Waters must be free from floating debris, oil, grease, scum and other floating materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to be unsightly or in amounts sufficient to interfere with any beneficial use of the water.

3. Waters must be free from materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to produce taste or odor in the water or detectable off-flavor in the flesh of fish or in amounts sufficient to change the existing color, turbidity or other conditions in the receiving stream to such a degree as to create a public nuisance or in amounts sufficient to interfere with any beneficial use of the water.

4. Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water. Compliance with the provisions of this subsection may be determined in accordance with methods of testing prescribed by the department. If used as an indicator, survival of test organisms must not be significantly less in test water than in control water.

5. If toxic materials are known or suspected by the department to be present in a water, testing for toxicity may be required to determine compliance with the provisions of this section and effluent limitations. The department may specify the method of testing to be used. The failure to determine the presence of toxic materials by testing does not preclude a determination by the department, on the basis of other criteria or methods, that excessive levels of toxic materials are present.

6. Radioactive materials attributable to municipal, industrial or other controllable sources must be the minimum concentrations which are physically and economically feasible to achieve. In no case must materials exceed the limits established in the 1962 Public Health Service Drinking Water Standards (or later amendments) or 1/30th of the MPC values given for continuous occupational exposure in the "National Bureau of Standards Handbook No. 69." The concentrations in water must not result in accumulation of radioactivity in plants or animals that result in a hazard to humans or harm to aquatic life.

7. Wastes from municipal, industrial or other controllable sources containing arsenic, barium, boron, cadmium, chromium, cyanide, fluoride, lead, selenium, silver, copper and zinc that are reasonably amenable to treatment or control must not be discharged untreated or uncontrolled into the waters of Nevada. In addition, the limits for concentrations of the chemical constituents must provide water quality consistent with the mandatory requirements of the 1962 Public Health Service Drinking Water Standards.

8. The specified standards are not considered violated when the natural conditions of the receiving water are outside the established limits, including periods of extreme high or low flow. Where effluents are discharged to such waters, the discharges are not considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.2 subsecs. a-g, eff. 5-2-78]—(NAC A 9-26-90)—(Substituted in revision for NAC 445.119)

#### **NAC 445A.122 Standards applicable to beneficial uses.**

1. The following standards are intended to protect both existing and designated beneficial uses and must not be used to prohibit the use of the water as authorized under Title 48 of NRS:

(a) Watering of livestock. The water must be suitable for the watering of livestock without treatment.

(b) Irrigation. The water must be suitable for irrigation without treatment.

(c) Aquatic life. The water must be suitable as a habitat for fish and other aquatic life existing in a body of water. This does not preclude the reestablishment of other fish or aquatic life.

(d) Recreation involving contact with the water. There must be no evidence of manmade pollution, floating debris, sludge accumulation or similar pollutants.

(e) Recreation not involving contact with the water. The water must be free from:

- (1) Visible floating, suspended or settled solids arising from man's activities;
  - (2) Sludge banks;
  - (3) Slime infestation;
  - (4) Heavy growth of attached plants, blooms or high concentrations of plankton, discoloration or excessive acidity or alkalinity that leads to corrosion of boats and docks;
  - (5) Surfactants that foam when the water is agitated or aerated; and
  - (6) Excessive water temperatures.
- (f) Municipal or domestic supply. The water must be capable of being treated by conventional methods of water treatment in order to comply with Nevada's drinking water standards.
- (g) Industrial supply. The water must be treatable to provide a quality of water which is suitable for the intended use.
- (h) Propagation of wildlife. The water must be suitable for the propagation of wildlife and waterfowl without treatment.
- (i) Waters of extraordinary ecological or aesthetic value. The unique ecological or aesthetic value of the water must be maintained.
- (j) Enhancement of water quality. The water must support natural enhancement or improvement of water quality in any water which is downstream.

2. This section does not entitle an appropriator to require that the source meet his particular requirements for water quality.

[Environmental Comm'n, Water Pollution Control Reg. § 4.1.1, eff. 5-2-78]—(NAC A 11-22-82; 12-3-84; 11-9-95)

#### **NAC 445A.123 Classification and reclassification of waters.**

1. Stream standards and classifications in NAC 445A.123 to 445A.127, inclusive, do not preclude the commission from establishing standards and classifications for additional public waters nor reclassifying the waters covered by those sections.

2. The commission will consider classification of a body of public water not contained in the tables in NAC 445A.123 to 445A.127, inclusive, upon a request for a permit to discharge into that body of water.

[Environmental Comm'n, Water Pollution Control Reg. § 4.2, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.121)

#### **NAC 445A.124 Class A waters: Description; beneficial uses; quality standards.**

1. Class A waters include waters or portions of waters located in areas of little human habitation, no industrial development or intensive agriculture and where the watershed is relatively undisturbed by man's activity.

2. The beneficial uses of class A waters are municipal or domestic supply, or both, with treatment by disinfection only, aquatic life, propagation of wildlife, irrigation, watering of livestock, recreation including contact with the water and recreation not involving contact with the water.

3. The quality standards for class A waters are:

Item	Specifications
(a) Floating solids, sludge deposits, tastes or odor-producing substances.	None attributable to man's activities.
(b) Sewage, industrial wastes or other wastes.	None.
(c) Toxic materials, oils, deleterious substances, colored or other wastes.	None.



Item	Specifications
(d) Settleable solids.	Only amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source or which will not be detrimental to aquatic life or for any other beneficial use established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	Must not be less than 6.0 milligrams/liter.
(g) Temperature.	Must not exceed 20°C. Allowable temperature increase above natural receiving water temperature: None.
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphate.	Must not exceed 0.15 mg/l in any stream at the point where it enters any reservoir or lake, nor 0.075 mg/l in any reservoir or lake, nor 0.30 mg/l in streams and other flowing waters.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).
4. The waters classified as class A are:	

TABLE A

Class A Waters

HR-Hydrographic region  
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Ash Canyon	8	104	From its origin to the first point of diversion of the Carson City water department.
Clear Creek	8	104	From its origin to gaging station number 10-3105 located in NE 1/4 NE 1/4, section 1, T. 14 N., R. 19E., M.D.B. & M.
Kings Canyon	8	104	From its origin to the point of the diversion of the Carson City water department.

## DOUGLAS COUNTY

Water	HR	HA	Description of Area Classified
Daggett Creek	8	105	From its origin to the Carson River.
Genoa Creek	8	105	From its origin to the first diversion box at the mouth of the canyon.
Sierra Canyon Creek	8	105	From its origin to the first diversion structure at the mouth of the canyon.

## ELKO COUNTY

Water	HR	HA	Description of Area Classified
Angel Lake	10	177	The entire lake.
Bear Creek	3	39	From its origin to the point of diversion for the Jarbidge municipal water supply.
Brown's Gulch	3	37	From its origin to the point of diversion for the Mountain City municipal water supply.
Camp Creek	3	40	From its origin to the national forest boundary.
Canyon Creek	3	40	From its origin to the national forest boundary.
Cottonwood Creek	3	40	From its origin to the national forest boundary.
Deep Creek	3	37	From its origin to the Wildhorse Reservoir.
Green Mountain Creek	4	47	From its origin to the national forest boundary.
Hendricks Creek	3	37	From its origin to Wildhorse Reservoir.
Humboldt River (N. Fork) and tributaries in Independence Mountain Range	4	44	From its origin to the national forest boundary.
Humboldt River (S. Fork) and tributaries	4	46	From its origin to Lee.
Jack Creek	3	37	From its origin to the north line of T. 41 N., R. 52 E., M.D.B. & M.
Lamoille Creek	4	45	From its origin to gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M.
Maggie Creek tributaries	4	51	From their origin to the point where they become Maggie Creek or the point where they reach Maggie Creek.
Mary's River	4	42	From its origin to the point where the river crosses the east line of T. 42 N., R. 59 E., M.D.B. & M.
Owyhee River (E. Fork) above Wildhorse	3	37	From its origin to Wildhorse Reservoir.

Water	HR	HA	Description of Area Classified
Penrod Creek	3	37	From its origin including tributaries to Wildhorse Reservoir.
Pole Canyon Creek	3	37	From its origin to where it becomes Franklin River.
Secret Creek	4	43	From its origin to the national forest boundary.
Start Creek	4	43	From its origin to the national forest boundary.
Tabor Creek	4	42	From its origin to the east line of T. 40 N., R. 60 E., M.D.B. & M.
Toyn Creek	4	47	From its origin to the national forest boundary.
Willow Creek	4	63	From its origin to Willow Creek Reservoir.

#### EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	From its origin to Tonkin Reservoir.
Roberts Creek	10	139	From its origin to Roberts Creek Reservoir.
Tonkin Reservoir	4	53	The entire reservoir.

#### HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its origin to its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M.
Blue Lakes	1	2	Entire area.
Bottle Creek	2	31	From its origin to the first point of diversion.
Dutch John Creek	4	68	The entire length.
Leonard Creek	2	28	From its origin to the first point of diversion.
Little Humboldt River (N. Fork)	4	67	From its origin to the national forest boundary.
Little Humboldt River (S. Fork)	4	67	From its origin to Elko-Humboldt county line.
Mahogany Creek	2	27	From its origin to Summit Lake.
Martin Creek	4	68, 69	From its origin to the national forest boundary.
Pole Creek	4	70	From its origin to the point of diversion of the Golconda water supply.
Quinn River	2	28, 29, 30, 33	From its origin to the confluence of the east fork and south fork.

Water	HR	HA	Description of Area Classified
Water Canyon Creek	4	71	From its origin to the point of diversion of the Winnemucca municipal water supply.

#### LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From its origin to the east boundary of United States Forest Service Big Creek Campground.
Birch Creek	10	137	From its origin to the national forest boundary.
Kingston Creek	10	137	From its origin to Groves Reservoir.
Lewis Creek	4	59	From its origin to the first point of diversion.
Mill Creek	4	59	From its origin to the first point of diversion.
Rock Creek	4	61, 62, 63	From its origin to Squaw Valley Ranch.
Skull Creek	10	138	From its origin to the first point of diversion.
Steiner Creek	10	138	From its origin to the first point of diversion.

#### MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Corey Creek	9	110C	From its origin to the point of diversion of the town of Hawthorne.
Cottonwood Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Rose Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.
Squaw Creek	9	110B	From its origin to the point of diversion of the Hawthorne Naval Ammunition Depot.

#### NYE COUNTY

Water	HR	HA	Description of Area Classified
Barley Creek	10	140	From its origin to the first point of diversion.
Currant Creek	10	173	From its origin to the national forest boundary.
Jett Creek	10	137	From its origin to the national forest boundary.

Water	HR	HA	Description of Area Classified
Mosquito Creek	10	140	From its origin to the national forest boundary.
Peavine Creek	10	137	From its origin to the first point of diversion.
Pine Creek	10	140	From its origin to the national forest boundary.
Reese Creek	4	56	From its origin to its confluence with Indian Creek.
San Juan Creek	4	56	From its origin to the national forest boundary.
Stoneberger Creek	10	140	From its origin to the national forest boundary.
Twin River (N. Fork)	10	137	From its origin to the first point of diversion.
Twin River (S. Fork)	10	137	From its origin to the first point of diversion.

#### PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Star Creek	10	129	From its origin to the first point of diversion.

#### WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Boulder Reservoir	1	9	The entire reservoir.
Catnip Reservoir	1	6	The entire reservoir.
Franktown Creek	6	89	From its origin to the first irrigation diversion.
Galena Creek	6	88	From its origin to the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M.
Hunter Creek	6	91	From its origin to Hunter Lake.
Hunter Lake	6	87	The entire lake.
Nigger Creek	2	24	From its origin to the first irrigation diversion.
Ophir Creek	6	89	From its origin to old U.S. Highway 395.
Price's Lakes	6	89	The entire lake.
White's Creek	6	87	From its origin to the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

#### WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Baker Creek	11	195	From its origin to the national forest boundary.

Water	HR	HA	Description of Area Classified
Berry Creek	10	179	From its origin to pipeline intake.
Bird Creek	10	179	From its origin to pipeline intake.
Cave Creek	10	179	Its entire length.
Cleve Creek	10	184	From its origin to the national forest boundary.
Current Creek	10	173	From its origin to the national forest boundary.
Duck Creek	10	179	From its origin to pipeline intake.
East Creek	10	179	From its origin to pipeline intake.
Goshute Creek	10	179	From its origin to the first point of diversion.
Hendry's Creek	11	195	From its origin to the national forest boundary.
Huntington Creek	4	47	From its origin to the White Pine-Elko county line.
Lehman Creek	11	195	From its origin to the national forest boundary.
North Creek	10	179	From its origin to pipeline intake.
Pine Creek	10	184	From its origin to the first point of diversion.
Ridge Creek	10	184	From its origin to the first point of diversion.
Silver Creek	11	195	From its origin to the national forest boundary.
Timber Creek	10	179	From its origin to pipeline intake.
White River	13	207	From its origin to the national forest boundary.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.1-4.2.1.3, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.122)

**NAC 445A.125 Class B waters: Description; beneficial uses; quality standards.**

1. Class B waters include waters or portions of waters which are located in areas of light or moderate human habitation, little industrial development, light-to-moderate agricultural development and where the watershed is only moderately influenced by man's activity.

2. The beneficial uses of class B water are municipal or domestic supply, or both, with treatment by disinfection and filtration only, irrigation, watering of livestock, aquatic life and propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class B waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to man's activities which will not make the waters unsafe or unsuitable as a drinking water source, injurious to fish or wildlife or impair the waters for any other beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.

Item	Specifications
(c) Odor-producing substances.	Only such amounts which will not impair the palatability of drinking water or fish or have a deleterious effect upon fish, wildlife or any beneficial uses established for waters of this class.
(d) Toxic materials, oil, deleterious substances, colored or other wastes, or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish or wildlife or impair the receiving waters for any beneficial uses established for this class.
(e) pH.	Range between 6.5 to 8.5.
(f) Dissolved oxygen.	For trout waters, not less than 6.0 milligrams/liter; for nontrout waters, not less than 5.0 milligrams/liter.
(g) Temperature.	Must not exceed 20°C for trout waters or 24°C for nontrout waters. Allowable temperature increase above natural receiving water temperatures: None.
(h) Fecal coliform.	The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters.
(i) Total phosphates.	Must not exceed 0.3 mg/l.
(j) Total dissolved solids.	Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class B are:

TABLE B

Class B Waters

HR-Hydrographic region  
HA-Hydrographic area

CARSON CITY

Water	HR	HA	Description of Area Classified
Clear Creek	8	104	From gaging station number 10-3105 located in the NE 1/4 NW 1/4, section 1, T. 14 N., R. 19 E., M.D.B. & M. to the Carson River.

# ELKO COUNTY

Water	HR	HA	Description of Area Classified
Bull Run Reservoir	3	35	The entire reservoir.
Camp Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Canyon Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Cottonwood Creek	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Green Mountain Creek	4	47	From the national forest boundary to its confluence with Corral Creek.
Humboldt River (N. Fork)	4	44	From the national forest boundary to its confluence with the Humboldt River.
Humboldt River (S. Fork)	4	46	From Lee to its confluence with the Humboldt River.
Huntington Creek	4	47	From White Pine county line to confluence with South Fork Humboldt River.
Jack Creek	3	36	From the north line of T. 41 N., R. 52 E., M.D.B. & M. to South Fork Owyhee River.
Lamoille Creek	4	45	From gaging station number 10-316500 located in the NE 1/4, section 6, T. 32 N., R. 58 E., M.D.B. & M. to its confluence with the Humboldt River.
Maggie Creek	4	51	From where it is formed by tributaries to its confluence with Jack Creek.
Mary's River	4	42	From the east line of T. 42 N., R. 59 E., M.D.B. & M. to its confluence with the Humboldt River.
Ruby Marsh	10	176	The entire area.
Salmon Falls Creek (N. Fork)	3	40	From the national forest boundary to its confluence with the south fork of Salmon Falls Creek.
Salmon Falls Creek (S. Fork)	3	40	From the national forest boundary to its confluence with the north fork of Salmon Falls Creek.
76 Creek	3	38	Its entire length.
Secret Creek	4	43	From the national forest boundary to the Humboldt River.
Starr Creek	4	43	From the national forest boundary to the Humboldt River.
Wildhorse Reservoir	3	37	The entire reservoir.
Willow Creek Reservoir	4	63	The entire reservoir.
Wilson Reservoir	3	35	The entire reservoir.



## EUREKA COUNTY

Water	HR	HA	Description of Area Classified
Denay Creek	4	53	Below Tonkin Reservoir.
Fish Springs Pond	10	155	The entire pond.
Roberts Creek	10	139	Below Roberts Creek Reservoir.

## HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Bilk Creek	2	29	From its intersection with the south line of section 35, T. 45 N., R. 32 E., M.D.B. & M. to Bilk Creek Reservoir.
Bilk Creek Reservoir	2	29	The entire reservoir.
Knott Creek Reservoir	1	3	The entire reservoir.
Little Humboldt River (N. Fork)	4	67	From the national forest boundary to its confluence with the south fork of the Little Humboldt River.
Little Humboldt River (S. Fork)	4	67	From the Elko-Humboldt county line to its confluence with the north fork of the Little Humboldt River.
Martin Creek	4	68, 69	From the national forest boundary downstream to the first diversion in T. 42 N., R. 40 E., M.D.B. & M.
Onion Valley Reservoir	1	2	The entire reservoir.
Quinn River	2	28, 29, 30, 33	From the point of confluence of the east fork and south fork to the Ft. McDermitt Indian Reservation diversion dam.
Summit Lake	2	27	The entire lake.

## LANDER COUNTY

Water	HR	HA	Description of Area Classified
Big Creek	4	56	From the east boundary of the United States Forest Service Big Creek Campground to the first diversion dam.
Birch Creek	10	137	From the national forest boundary to the first diversion dam.
Groves Lake	10	137	The entire lake.
Iowa Canyon Reservoir	4	55	The entire reservoir.
Kingston Creek	10	137	Below Groves Lake.
Reese River	4	56, 58, 59	From its confluence with Indian Creek to old U.S. Highway 50.
Willow Creek Reservoir	10	131	The entire reservoir.

## LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Clover Creek	13	204	From its origin to the point where it crosses the east range line of T. 4 S., R. 67 E., M.D.B. & M.
Eagle Valley Creek	13	200, 201	From its headwaters to Eagle Valley Reservoir.
Eagle Valley Reservoir	13	201	The entire reservoir.

## NYE COUNTY

Water	HR	HA	Description of Area Classified
Adams McGill Reservoir	13	207	The entire reservoir.
Currant Creek	10	173	From the national forest boundary to Currant.
Dacey Reservoir	13	207	The entire reservoir.
Hay Meadow Reservoir	13	207	The entire reservoir.
Reese River	4	56	From its confluence with Indian Creek to old U.S. Highway 50.
Sunnyside Creek	13	207	From its origin to the Adams McGill Reservoir.

## WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Davis Lake	6	89	The entire lake.
Franktown Creek	4	89	From the first irrigation diversion to Washoe Lake.
Galena Creek	6	88	From the east line of section 18, T. 17 N., R. 19 E., M.D.B. & M. to gaging station number 10-348900 located in the SW 1/4 SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M.
Hobart Reservoir and tributaries	6	89	The entire system.
Hunter Creek	6	91	From Hunter Lake to its confluence with the Truckee River.
Ophir Creek	6	89	From old U.S. Highway 395 to Washoe Lake.
Squaw Creek Reservoir	2	21	The entire reservoir.
Wall Canyon Reservoir	1	16	The entire reservoir.
White's Creek	6	87	Below the east line of section 33, T. 18 N., R. 19 E., M.D.B. & M.

Water	HR	HA	Description of Area Classified
Cave Lake	10	179	The entire lake.
Illipah Reservoir	10	174	The entire reservoir.
Silver Creek Reservoir	11	195	The entire reservoir.
White River	13	207	From the national forest boundary to its confluence with Ellison Creek.

[Environmental Comm'n. Water Pollution Control Reg. §§ 4.2.2-4.2.2.3. eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.123)

**NAC 445A.126 Class C waters: Description; beneficial uses; quality standards.**

1. Class C waters include waters or portions of waters which are located in areas of moderate-to-urban human habitation, where industrial development is present in moderate amounts, agricultural practices are intensive and where the watershed is considerably altered by man's activity.

2. The beneficial uses of class C water are municipal or domestic supply, or both, following complete treatment, irrigation, watering of livestock, aquatic life, propagation of wildlife, recreation involving contact with the water, recreation not involving contact with the water, and industrial supply.

3. The quality standards for class C waters are:

Item	Specifications
(a) Floating solids, solids that will settle or sludge deposits.	Only those amounts attributable to the activities of man which will not make the receiving waters injurious to fish or wildlife or impair the waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquids.	Only such amounts as will not render the receiving waters injurious to fish and wildlife or impair the waters for any beneficial use established for this class.
(d) pH.	Range between 6.5 to 8.5.
(e) Dissolved oxygen.	For waters with trout, not less than 6.0 mg/l; for waters without trout, not less than 5.0 mg/l.
(f) Temperature.	Must not exceed 20°C for waters with trout or 34°C for waters without trout. Allowable temperature increase above normal receiving water temperature: 3°C.
(g) Fecal coliform.	The more stringent of the following apply:
(1) The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.	
(2) The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.	

(3) The fecal coliform concentration, based on a minimum of 5 samples during any 30-day period, must not exceed a geometric mean of 200 per 100 milliliters, nor may more than 10 percent of total samples during any 30-day period exceed 400 per 100 milliliters. This is applicable only to those waters used for primary contact recreation.

- (b) Total phosphates. Must not exceed 1.0 mg/l.  
 (i) Total dissolved solids. Must not exceed 500 mg/l or one-third above that characteristic of natural conditions (whichever is less).

4. The waters classified as class C waters are:

TABLE C

Class C Waters

HR-Hydrographic region  
 HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Diagonal Drain	8	101	Its entire length.
Harmon Reservoir	8	101	The entire reservoir.
Indian Lakes	8	101	All the lakes, including Upper Lake, Likes Lake, Papoose Lake, Big Indian Lake, Little Cottonwood Lake, Big Cottonwood Lake and East Lake.
Lower Carson River	8	101	From Lahontan Reservoir to Carson Sink (the natural channel).
Rattlesnake Reservoir	8	101	Also known as S-Line Reservoir, the entire reservoir.
South Carson Lake	8	101	Also known as Government Pasture or the Greenhead Gun Club, the entire lake.
Stillwater Marsh	8	101	All that area of Stillwater Marsh east of Westside Road and north of the community of Stillwater.
V-Line Canal	8	101	From the Carson diversion dam to its division into the S & L Canals.

CLARK COUNTY

Water	HR	HA	Description of Area Classified
Bowman Reservoir	13	220	The entire reservoir.
Muddy (Moapa) River	13	219	From its origin (but not including source springs) to its confluence with Lake Mead.

## ELKO COUNTY

Water	HR	HA	Description of Area Classified
Maggie Creek	4	51	From its confluence with Jack Creek to the Humboldt River.

## ESMERALDA COUNTY

Water	HR	HA	Description of Area Classified
Fish Lake	10	117	The entire lake.

## EUREKA COUNTY

Water	HR	HA	Description of Area Classified
J.D. Ponds	4	53	The entire area.

## HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Little Humboldt River	4	67	Its entire length.

## LANDER COUNTY

Water	HR	HA	Description of Area Classified
Reese River	4	56, 58, 59	North of old U.S. Highway 50.
Rock Creek	4	61, 62, 63	Below Squaw Valley Ranch.

## LINCOLN COUNTY

Water	HR	HA	Description of Area Classified
Echo Canyon Reservoir	13	199	The entire reservoir.
Nesbitt Lake	13	209	The entire lake.
Pahranagat Reservoir	13	209	The entire reservoir.
Schroeder Reservoir	13	222	The entire reservoir.

## LYON COUNTY

Water	HR	HA	Description of Area Classified
Mason Wildlife Area	9	109	All surface water impoundments.

## MINERAL COUNTY

Water	HR	HA	Description of Area Classified
Weber Reservoir	9	110	Entire reservoir.

### PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	From Woolsey to Rodgers Dam.

### STOREY COUNTY

Water	HR	HA	Description of Area Classified
Tracy Pond	6	83	The entire area.

### WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Galena Creek	6	88	From gaging station number 10-348900 located in the SW 1/4, SW 1/4, section 2, T. 17 N., R. 19 E., M.D.B. & M., to its confluence with Steamboat Creek.
Steamboat Creek	6	87, 88, 89	From Little Washoe Lake to gaging station number 10-349300 located in the S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M.
Washoe Lakes	6	89	The entire lakes.

### WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Comins Reservoir	10	179	The entire reservoir.
Gleason Creek	10	179	From its origin to State Highway 44.
Snake Creek	11	195	From control point above fish hatchery to the Nevada-Utah state line.
Willow Reservoir	10	179	The entire reservoir.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.3-4.2.3.2, eff. 5-2-78; § 4.2.3.3, eff. 5-2-78; A 1-25-79]—(NAC A 12-3-84; 9-13-85; 5-27-93)—(Substituted in revision for NAC 445.124)

#### **NAC 445A.127 Class D waters: Description; beneficial uses; quality standards.**

1. Class D waters include waters or portions of waters located in areas of urban development, highly industrialized or intensively used for agriculture or a combination of all the above and where effluent sources include a multiplicity of waste discharges from the highly altered watershed.

2. The beneficial uses of class D waters are recreation not involving contact with the water, aquatic life, propagation of wildlife, irrigation, watering of livestock, and industrial supply except for food processing purposes.

3. The quality standards for class D waters are:

Item	Specifications
(a) Floating solids, settleable solids or sludge deposits.	Only such amounts attributable to the activities of man which will not impair the receiving waters for any beneficial use established for this class.
(b) Sewage, industrial wastes or other wastes.	None which are not effectively treated to the satisfaction of the department.
(c) Toxic materials, oils, deleterious substances, colored or other wastes or heated or cooled liquid.	Only such amounts as will not impair the receiving waters for any beneficial use established for this class.
(d) pH.	Range between 6.0 and 9.0.
(e) Dissolved oxygen.	Not less than 3.0.
4. The waters classified as class D waters are:	

TABLE D

Class D Waters

HR-Hydrographic region  
HA-Hydrographic area

CHURCHILL COUNTY

Water	HR	HA	Description of Area Classified
Stillwater Marsh	8	101	All that area of Stillwater Marsh not designated as class C.

HUMBOLDT COUNTY

Water	HR	HA	Description of Area Classified
Quinn River	2	33	From the Idaho-Nevada state line in section 31, T. 48 N., R. 38 E., to the confluence with the main tributary of the Quinn River at the south section line of section 17, T. 47 N., R. 38 E.

PERSHING COUNTY

Water	HR	HA	Description of Area Classified
Humboldt River	4	73	Rodgers Dam to and including Humboldt Sink.

STOREY COUNTY

Water	HR	HA	Description of Area Classified
Lagomarsino Creek	6	83	The entire length.

## WASHOE COUNTY

Water	HR	HA	Description of Area Classified
Steamboat Creek	6	87	From gaging station number 10-349300 located in S 1/2, section 33, T. 18 N., R. 20 E., M.D.B. & M. to its confluence with the Truckee River.

## WHITE PINE COUNTY

Water	HR	HA	Description of Area Classified
Gleason Creek	10	179	From State Highway 44 to its confluence with Murray Creek.
Murray Creek	10	179	From its confluence with Gleason Creek to the south line of section 35, T. 17 N., R. 63 E., M.D.B. & M.

[Environmental Comm'n, Water Pollution Control Reg. §§ 4.2.4, 4.2.4.2 & 4.2.4.3. eff. 5-2-78; § 4.2.4.1, eff. 5-2-78; A 11-21-79]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.125)

**NAC 445A.128 Definitions.** As used in NAC 445A.143 to 445A.225, inclusive, the terms and symbols defined in NAC 445A.129 to 445A.142, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n, eff. 6-29-84; A 11-9-95)

**NAC 445A.129 "A-Avg." or "A.A." defined.** "A-Avg." or "A.A." means annual average.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1282)

**NAC 445A.130 "Δ" defined.** "Δ" means the difference between two points.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1284)

**NAC 445A.131 "Δ pH" defined.** "Δ pH" means the change in pH.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1286)

**NAC 445A.132 "Δ T" defined.** "Δ T" means the change in temperature.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1288)

**NAC 445A.133 "Geometric mean" defined.** "Geometric mean" means the mean of n positive numbers obtained by taking the nth root of the product of the numbers.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.129)



**NAC 445A.134 "mg/l" defined.** "mg/l" means the concentration of a substance, in milligrams, present in one liter of the water.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1292)

**NAC 445A.135 "No./100ml" defined.** "No./100ml" means the number of organisms present in 100 milliliters of the water.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1294)

**NAC 445A.136 "NTU" defined.** "NTU" means nephelometric turbidity units, a measure of turbidity.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1296)

**NAC 445A.137 "PCU" defined.** "PCU" means platinum cobalt unit, a measure of color.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1298)

**NAC 445A.138 "pH unit" defined.** "pH unit" means the negative log of the hydrogen ion concentration.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.130)

**NAC 445A.139 "SAR" defined.** "SAR" means sodium adsorption ratio.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1302)

**NAC 445A.140 "S.V." defined.** "S.V." means single value.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1304)

**NAC 445A.141 "≥" defined.** "≥" means greater than or equal to.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1306)

**NAC 445A.142 "≤" defined.** "≤" means less than or equal to.

(Added to NAC by Environmental Comm'n, eff. 6-29-84)—(Substituted in revision for NAC 445.1308)

**NAC 445A.143 Cooperation regarding Colorado River; salinity standards.**

1. The State of Nevada will cooperate with the other Colorado River Basin states and the Federal Government to support and carry out the conclusions and recommendations adopted April 27, 1972, by the reconvened 7th session of the conference in the matter of pollution of interstate waters of the Colorado River and its tributaries.

2. Pursuant to subsection 1, the values for total dissolved solids in mg/l at the three lower main stem stations of the Colorado River are as follows:

Below Hoover Dam.....	723
Below Parker Dam.....	747
Imperial Dam.....	879

[Environmental Comm'n. Water Pollution Control Reg. Appendix B, eff. 5-2-78]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.1337)

**NAC 445A.144 Standards for toxic materials applicable to designated waters.** Except as otherwise provided in this section, the following standards for toxic materials are applicable to the waters specified in NAC 445A.123 to 445A.127, inclusive, and 445A.145 to 445A.225, inclusive. If the standards are exceeded at a site and are not economically controllable, the commission will review and adjust the standards for the site.

Chemical	Municipal or Domestic Supply (µg/l)	Aquatic Life (µg/l)	Irrigation (µg/l)	Watering of Livestock (µg/l)
Antimony	146 <sup>a</sup>	-	-	-
Arsenic	50 <sup>a</sup>	-	100 <sup>c</sup>	200 <sup>c</sup>
Arsenic (III)	-	-	-	-
1-hour average	-	342 <sup>a,s</sup>	-	-
96-hour average	-	180 <sup>a,s</sup>	-	-
Barium	2,000 <sup>b</sup>	-	-	-
Beryllium	0 <sup>a</sup>	-	100 <sup>c</sup>	-
hardness < 75 mg/l	-	-	-	-
hardness ≥ 75 mg/l	-	-	-	-
Boron	-	-	750 <sup>a</sup>	5,000 <sup>c</sup>
Cadmium	5 <sup>b</sup>	-	10 <sup>d</sup>	50 <sup>c</sup>
1-hour average	-	$0.85\exp\{1.128 \ln(H)-3.828\}^{a,s}$	-	-
96-hour average	-	$0.85\exp\{0.7852 \ln(H)-3.490\}^{a,s}$	-	-
Chromium (total)	100 <sup>b</sup>	-	100 <sup>c</sup>	1,000 <sup>d</sup>
Chromium (VI)	-	-	-	-
1-hour average	-	15 <sup>a,s</sup>	-	-
96-hour average	-	10 <sup>a,s</sup>	-	-
Chromium (III)	-	-	-	-
1-hour average	-	$0.85\exp\{0.8190 \ln(H)+3.688\}^{a,s}$	-	-
96-hour average	-	$0.85\exp\{0.8190 \ln(H)+1.561\}^{a,s}$	-	-
Copper	-	-	200 <sup>c</sup>	500 <sup>d</sup>
1-hour average	-	$0.85\exp\{0.9422 \ln(H)-1.464\}^{a,s}$	-	-
96-hour average	-	$0.85\exp\{0.8545 \ln(H)-1.465\}^{a,s}$	-	-
Cyanide	200 <sup>a</sup>	-	-	-
1-hour average	-	22 <sup>a</sup>	-	-
96-hour average	-	5.2 <sup>a</sup>	-	-
Fluoride	-	-	1,000 <sup>d</sup>	2,000 <sup>c</sup>
Iron	-	1,000 <sup>a</sup>	5,000 <sup>d</sup>	-
Lead	50 <sup>a,b</sup>	-	5,000 <sup>d</sup>	100 <sup>d</sup>
1-hour average	-	$0.50\exp\{1.273 \ln(H)-1.460\}^{a,s}$	-	-
96-hour average	-	$0.25\exp\{1.273 \ln(H)-4.705\}^{a,s}$	-	-
Manganese	-	-	200 <sup>d</sup>	-
Mercury	2 <sup>b</sup>	-	-	10 <sup>c</sup>
1-hour average	-	2.0 <sup>a,s</sup>	-	-
96-hour average	-	0.012 <sup>a</sup>	-	-
Molybdenum	-	19 <sup>c</sup>	-	-

Chemical	Municipal or Domestic Supply ( $\mu\text{g/l}$ )	Aquatic Life ( $\mu\text{g/l}$ )	Irrigation ( $\mu\text{g/l}$ )	Watering of Livestock ( $\mu\text{g/l}$ )
Nickel	13.4 <sup>a</sup>	-	200 <sup>c</sup>	-
1-hour average	-	$0.85\exp\{0.8460$ $\ln(H) - 3.3612\}^{1.44}$	-	-
96-hour average	-	$0.85\exp\{0.8460$ $\ln(H) - 3.3612\}^{1.44}$	-	-
Selenium	50 <sup>b</sup>	-	20 <sup>c</sup>	50 <sup>c</sup>
1-hour average	-	20 <sup>a</sup>	-	-
96-hour average	-	5.0 <sup>a</sup>	-	-
Silver	-	$0.85\exp\{1.72 \ln(H) - 6.52\}^{1.44}$	-	-
Sulfide	-	-	-	-
undissociated hydrogen sulfide	-	2 <sup>a</sup>	-	-
Thallium	13 <sup>a</sup>	-	-	-
Zinc	-	-	2,000 <sup>d</sup>	25,000 <sup>d</sup>
1-hour average	-	$0.85\exp\{0.8473$ $\ln(H) + 0.8604\}^{1.44}$	-	-
96-hour average	-	$0.85\exp\{0.8473$ $\ln(H) + 0.8614\}^{1.44}$	-	-
Acrolein	320 <sup>a</sup>	-	-	-
Aldrin	0 <sup>a</sup>	3 <sup>a</sup>	-	-
Chlordane	0 <sup>a</sup>	2.4 <sup>a</sup>	-	-
24-hour average	-	0.0043 <sup>a</sup>	-	-
2,4-D	100 <sup>a,b</sup>	-	-	-
DDT & metabolites	0 <sup>a</sup>	1.1 <sup>a</sup>	-	-
24-hour average	-	0.0010 <sup>a</sup>	-	-
Demeton	-	0.1 <sup>a</sup>	-	-
Dieldrin	0 <sup>a</sup>	2.5 <sup>a</sup>	-	-
24-hour average	-	0.0019 <sup>a</sup>	-	-
Endosulfan	75 <sup>a</sup>	0.22 <sup>a</sup>	-	-
24-hour average	-	0.056 <sup>a</sup>	-	-
Endrin	0.2 <sup>b</sup>	0.18 <sup>a</sup>	-	-
24-hour average	-	0.0023 <sup>a</sup>	-	-
Guthion	-	0.01 <sup>a</sup>	-	-
Heptachlor	-	0.52 <sup>a</sup>	-	-
24-hour average	-	0.0038 <sup>a</sup>	-	-
Lindane	4 <sup>b</sup>	2.0 <sup>a</sup>	-	-
24-hour average	-	0.080 <sup>a</sup>	-	-
Malathion	-	0.1 <sup>a</sup>	-	-
Methoxychlor	100 <sup>a,b</sup>	0.03 <sup>a</sup>	-	-
Mirex	0 <sup>a</sup>	0.001 <sup>a</sup>	-	-
Parathion	-	-	-	-
1-hour average	-	0.065 <sup>a</sup>	-	-
96-hour average	-	0.013 <sup>a</sup>	-	-
Silvex (2,4,5-TP)	10 <sup>a,b</sup>	-	-	-
Toxaphene	5 <sup>b</sup>	-	-	-
1-hour average	-	0.73 <sup>a</sup>	-	-
96-hour average	-	0.0002 <sup>a</sup>	-	-
Benzene	5 <sup>b</sup>	-	-	-
Monochlorobenzene	488 <sup>a</sup>	-	-	-
m-dichlorobenzene	400 <sup>a</sup>	-	-	-
o-dichlorobenzene	400 <sup>a</sup>	-	-	-
p-dichlorobenzene	75 <sup>b</sup>	-	-	-
Ethylbenzene	1,400 <sup>a</sup>	-	-	-
Nitrobenzene	19,800 <sup>a</sup>	-	-	-
1,2-dichloroethane	5 <sup>b</sup>	-	-	-
1,1,1-trichloroethane (TCA)	200 <sup>b</sup>	-	-	-
Bis (2-chloroisopropyl) ether	34.7 <sup>a</sup>	-	-	-
Chloroethylene (vinyl chloride)	2 <sup>b</sup>	-	-	-

Chemical	Municipal or Domestic Supply ( $\mu\text{g/l}$ )	Aquatic Life ( $\mu\text{g/l}$ )	Irrigation ( $\mu\text{g/l}$ )	Watering of Livestock ( $\mu\text{g/l}$ )
1,1-dichloroethylene	7 <sup>a</sup>	-	-	-
Trichloroethylene (TCE)	5 <sup>a</sup>	-	-	-
Hexachlorocyclopentadiene	206 <sup>a</sup>	-	-	-
Isophorone	5,200 <sup>a</sup>	-	-	-
Trihalomethanes (total)	100 <sup>b</sup>	-	-	-
Tetrachloromethane (carbon tetrachloride)	5 <sup>a</sup>	-	-	-
Phenol	3,500 <sup>a</sup>	-	-	-
2,4-dichlorophenol	3,090 <sup>a</sup>	-	-	-
Pentachlorophenol	1,010 <sup>a</sup>	-	-	-
1-hour average	-	$\exp\{1.005 (\text{pH}) - 4.830\}$ <sup>c</sup>	-	-
96-hour average	-	$\exp\{1.005 (\text{pH}) - 5.290\}$ <sup>c</sup>	-	-
Dinitrophenols	70 <sup>a</sup>	-	-	-
4,6-dinitro-2-methylphenol	13.4 <sup>a</sup>	-	-	-
Dibutyl phthalate	34,000 <sup>a</sup>	-	-	-
Diethyl phthalate	350,000 <sup>a</sup>	-	-	-
Dimethyl phthalate	313,000 <sup>a</sup>	-	-	-
Di-2-ethylhexyl phthalate	15,000 <sup>a</sup>	-	-	-
Polychlorinated biphenyls (PCBs)	0 <sup>a</sup>	-	-	-
24-hour average	-	0.014 <sup>d</sup>	-	-
Fluoranthene (polynuclear aromatic hydrocarbon)	42 <sup>a</sup>	-	-	-
Dichloropropenes	87 <sup>a</sup>	-	-	-
Toluene	14,300 <sup>a</sup>	-	-	-

#### Footnotes and References

- (1) Single concentration limits and 24-hour average concentration limits must not be exceeded. One-hour average and 96-hour average concentration limits may be exceeded only once every 3 years. See reference a.
- (2) Hardness (H) is expressed as mg/l  $\text{CaCO}_3$ .
- (3) If a criterion is less than the detection limit of a method that is acceptable to the division, laboratory results which show that the substance was not detected will be deemed to show compliance with the standard unless other information indicates that the substance may be present.
- (4) If a standard does not exist for each designated beneficial use, a person who plans to discharge waste must demonstrate that no adverse effect will occur to a designated beneficial use. If the discharge of a substance will lower the quality of the water, a person who plans to discharge waste must meet the requirements of NRS 445A.565.
- (5) The standards for metals are expressed as total recoverable, unless otherwise noted.
  - a. U.S. Environmental Protection Agency, Pub. No. EPA 440/5-86-001, Quality Criteria for Water (Gold Book) (1986).
  - b. Federal Maximum Contaminant Level (MCL), 40 C.F.R. §§ 141.11, 141.12, 141.61 and 141.62 (1992).
  - c. U.S. Environmental Protection Agency, Pub. No. EPA 440/9-76-023, Quality Criteria for Water (Red Book) (1976).
  - d. National Academy of Sciences, Water Quality Criteria (Blue Book) (1972).
  - e. California State Water Resources Control Board, Regulation of Agricultural Drainage to the San Joaquin River: Appendix D, Water Quality Criteria (March 1988 revision).
  - f. The criteria for trihalomethanes (total) is the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform) and trichloromethane (chloroform). See reference b.
  - g. This standard applies to the dissolved fraction.

(Added to NAC by Environmental Comm'n, eff. 9-13-85; A 9-25-90; 7-5-94; 11-29-95)

**NAC 445A.145 Control points: Prescription and applicability of numerical standards for water quality; designation of beneficial uses.**

1. Control points are locations where water quality criteria are specified. Criteria so specified apply to all surface waters of Nevada in the watershed upstream from the control point or to the next upstream control point or to the next water named in NAC 445A.123.

2. If there are no control points downstream from a particular control point, the criteria for that control point also apply to all surface waters of Nevada in the watershed downstream of the control point or to the next water named in NAC 445A.123.

3. Each standard is set to protect the beneficial use which is most sensitive with respect to that particular standard.

4. NAC 445A.147 to 445A.212, inclusive, prescribe numerical standards for water quality and designate beneficial uses at particular control points.

[Environmental Comm'n, Water Pollution Control Reg. § 4.2.5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82; 9-25-90)—(Substituted in revision for NAC 445.134)

**NAC 445A.146 Beneficial uses for Carson River.** The standards for water quality for the Carson River from Lahontan Dam to the state line are prescribed in NAC 445A.147 to 445A.158, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, more specifically, the species of major concern are:
  - (a) West Fork at the state line, rainbow trout and brown trout.
  - (b) Bryant Creek, rainbow trout and brown trout.
  - (c) East Fork Carson at the state line, rainbow trout and brown trout.
  - (d) From the East Fork Carson at the state line to near Highway 395 south of Gardnerville, rainbow trout and brown trout.
  - (e) From the East Fork Carson near Highway 395 south of Gardnerville to Muller Lane, rainbow trout and brown trout.
  - (f) From the Carson River at Genoa Lane to the East Fork Carson at Muller Lane and to the West Fork Carson at the state line, catfish, rainbow trout and brown trout.
  - (g) From the Carson River at Cradlebaugh Bridge to Genoa Lane, catfish, rainbow trout and brown trout.
  - (h) From the Carson River at Mexican Ditch Gage to Cradlebaugh Bridge, rainbow trout and brown trout.
  - (i) From the Carson River near New Empire to Mexican Ditch Gage, smallmouth bass, rainbow trout and brown trout.
  - (j) From the Carson River at Dayton Bridge to New Empire, walleye, channel catfish and white bass.
  - (k) From the Carson River at Weeks to the Dayton Bridge, walleye, channel catfish and white bass.
  - (l) From Lake Lahontan at Lahontan Dam to Weeks, walleye, channel catfish and white bass.

(Added to NAC by Environmental Comm'n, eff. 12-3-84)—(Substituted in revision for NAC 445.13405)

# NAC 445A.147 Carson River: West Fork at the state line.

## STANDARDS OF WATER QUALITY Carson River

Control Point at the West Fork at the state line. The limits of this table apply only to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  ΔT	  ΔT = 0°C	Nov.-May: ≤13°C June: ≤17°C July: ≤21°C Aug.-Oct.: ≤22°C ΔT ≤2°C	Aquatic life <sup>a</sup> and water contact recreation.
pH Units	7.4 - 8.4 -	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.16 S.V.: ≤0.33	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	A-Avg.: ≤0.4 S.V.: ≤0.5	Nitrate S.V.: ≤10 Nitrite S.V.: ≤0.06 Ammonia S.V.: ≤0.02 (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: Nov.-May: ≥6.0 Jun.-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: ≤15 -	S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤70 S.V.: ≤95	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤3 S.V.: ≤5	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	- S.V.: ≤4	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤1	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	- -	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤105 -	≤200/400 <sup>c</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

STANDARDS OF WATER QUALITY  
Carson River

Control Point at Bryant Creek near the state line. The limits of this table apply only to Bryant Creek near the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T$	  $\Delta T = 0^{\circ}\text{C}$	Nov.-May: $\leq 13^{\circ}\text{C}$ June: $\leq 17^{\circ}\text{C}$ July: $\leq 21^{\circ}\text{C}$ Aug.-Oct.: $\leq 22^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Aquatic life <sup>a</sup> and water contact recreation.
pH Units	- -	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.036$ S.V.: $\leq 0.05$	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	A-Avg.: $\leq 0.6$ S.V.: $\leq 1.0$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	- -	S.V.: $\leq 25$	Aquatic life <sup>b</sup> .
Turbidity - NTU	- -	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 375$ S.V.: $\leq 420$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 6$ S.V.: $\leq 7$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	- -	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 1$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	- -	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 90$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

NAC 445A.149 Carson River: East Fork at the state line.

STANDARDS OF WATER QUALITY  
Carson River

Control Point at the East Fork at the state line. The limits of this table apply only to the East Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.-Oct.: $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	- -	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.03$ S.V.: $\leq 0.05$	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.5$ S.V.: $\leq 1.1$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	- -	S.V.: $\leq 25$	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: $\leq 5$ S.V.: $\leq 8$	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 145$ S.V.: $\leq 185$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 3$ S.V.: $\leq 5$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	- S.V.: $\leq 3$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	- -	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 40$ S.V.: $\leq 60$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 3, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)



# NAC 445A.150 Carson River: East Fork at Highway 395, south of Gardnerville.

## STANDARDS OF WATER QUALITY Carson River

Control Point for East Fork at Highway 395, South of Gardnerville (Riverview). The limits of this table apply from Riverview Mobile Home Park to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.6 —	S.V.: 6.5 - 9.0 $\Delta\text{pH} \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.4$ S.V.: $\leq 0.5$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	3	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 120$ S.V.: $\leq 175$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 6$ S.V.: $\leq 10$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	— —	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 20$ S.V.: $\leq 85$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 4, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

# NAC 445A.151 Carson River: East Fork at Muller Lane.

## STANDARDS OF WATER QUALITY Carson River

Control Point at the East Fork at Muller Lane. The limits of this table apply only from East Fork at Muller Lane to Highway 395, South of Gardnerville (Riverview Mobile Home Park).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  ΔT <sup>a</sup>	  ΔT = 0°C	Nov.-May: ≤13°C June: ≤17°C July: ≤21°C Aug.-Oct.: ≤22°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.7 —	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.5 S.V.: ≤0.8	Nitrate S.V.: ≤10 Nitrite S.V.: ≤0.06 Ammonia S.V.: ≤0.02 (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: ≥6.0 Jun.-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: ≤80	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: ≤180 S.V.: ≤205	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤8 S.V.: ≤10	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	— —	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤2	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤50 —	≤200/400 <sup>c</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

STANDARDS OF WATER QUALITY  
Carson River

Control Point at Genoa Lane. The limits of this table apply from Genoa Lane to the East Fork at Muller Lane and to the West Fork at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.5 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.8$ S.V.: $\leq 1.3$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 165$ S.V.: $\leq 220$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 8$ S.V.: $\leq 12$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	— —	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 180$ —	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 5A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

# NAC 445A.153 Carson River at Cradlebaugh Bridge.

## STANDARDS OF WATER QUALITY Carson River

Control Point at Cradlebaugh Bridge. The limits of this table apply from Cradlebaugh Bridge to Genoa Lane.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.4 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 85$ S.V.: $\leq 1.2$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 180$ S.V.: $\leq 230$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 8$ S.V.: $\leq 15$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	— —	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	— —	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6, eff. 5-2-78;  
A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

# NAC 445A.154 Carson River at Mexican Ditch Gage.

## STANDARDS OF WATER QUALITY Carson River

Control Point at Mexican Ditch Gage. The limits of this table apply from Mexican Ditch Gage to Highway 395, at Cradlebaugh Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T$	$\Delta T = 0^{\circ}\text{C}$	Nov.-Apr.: $\leq 13^{\circ}\text{C}$ May-June: $\leq 17^{\circ}\text{C}$ Jul.-Oct.: $\leq 23^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Aquatic life <sup>a</sup> and water contact recreation.
pH Units	7.4 - 8.5 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.8$ S.V.: $\leq 1.3$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 285$ S.V.: $\leq 360$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 17$ S.V.: $\leq 23$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: $\leq 24$ S.V.: $\leq 100$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 110$ S.V.: $\leq 295$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 6A, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

# NAC 445A.155 Carson River near New Empire.

## STANDARDS OF WATER QUALITY Carson River

Control Point near New Empire. The limits of this table apply from New Empire to the Mexican Ditch Gage.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-May: $\leq 18^\circ\text{C}$ Jun-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.4 - 8.4 —	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.7$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	— —	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	— —	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 260$ S.V.: $\leq 375$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 13$ S.V.: $\leq 24$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	— —	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	— —	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	— —	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 7, eff. 5-2-78;  
A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)

# NAC 445A.156 Carson River at Dayton Bridge.

## STANDARDS OF WATER QUALITY Carson River

Control Point at Dayton Bridge. The limits of this table apply from Dayton Bridge to New Empire.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 11^\circ\text{C}$ Apr.-Jun.: $\leq 24^\circ\text{C}$ Jul.-Oct.: $\leq 28^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.6 -	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	- -	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.2$ S.V.: $\leq 1.6$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	- -	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: $\leq 12$ S.V.: $\leq 25$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 250$ S.V.: $\leq 400$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 10$ S.V.: $\leq 18$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	- -	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	- -	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 280$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 12-3-84; 9-15-94)

# NAC 445A.157 Carson River at Weeks.

## STANDARDS OF WATER QUALITY Carson River

Control Point at Weeks (Ft. Churchill). The limits of this table apply from the U.S. Highway 95 Bridge at Weeks to the Dayton Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Mar.: $\leq 11^\circ C$ Apr.-Jun.: $\leq 24^\circ C$ Jul.-Oct.: $\leq 28^\circ C$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.5 - 8.5 -	S.V.: 6.5 - 9.0 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	- -	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.6$ S.V.: $\leq 1.1$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	- -	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: $\leq 5$ -	S.V.: $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 50$ S.V.: $\leq 80$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 10$ S.V.: $\leq 18$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: $\leq 100$ S.V.: $\leq 140$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $CaCO_3$ ) - mg/l	- -	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 240$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 8. eff. 5-2-78;  
A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84; 9-15-94)



# NAC 445A.158 Carson River at Lahontan Dam.

## STANDARDS OF WATER QUALITY Carson River

Control Point at Lahontan Dam. The limits of this table apply from Lahontan Dam to the U.S. Highway 95 bridge at Weeks (Ft. Churchill).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T$	$\Delta T = 0^{\circ}\text{C}$	Nov.-Mar.: $\leq 11^{\circ}\text{C}$ Apr.-Jun.: $\leq 24^{\circ}\text{C}$ Jul.-Oct.: $\leq 28^{\circ}\text{C}$ $\Delta T \leq 2^{\circ}\text{C}$	Aquatic life <sup>a</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	—	S.V.: $\leq 0.06$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.7$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , municipal or domestic supply <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 25$	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: $\leq 15$ S.V.: $\leq 27$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 175$ S.V.: $\leq 225$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 9$ S.V.: $\leq 15$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: $\leq 35$ S.V.: $\leq 50$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 25$ S.V.: $\leq 75$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 9, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 12-3-84)—(Substituted in revision for NAC 445.13422)

**NAC 445A.159 Beneficial uses for Walker River.** The standards of water quality for the Walker River from Walker Lake to the state line are prescribed in NAC 445A.160 to 445A.169, inclusive. The beneficial uses for this area are:

1. Irrigation;
  2. Watering of livestock;
  3. Recreation involving contact with the water;
  4. Recreation not involving contact with water;
  5. Industrial supply;
  6. Municipal or domestic supply, or both;
  7. Propagation of wildlife; and
  8. Propagation of aquatic life, and more specifically, the species of major concern are:
    - (a) In the West Walker River at the state line, rainbow trout and brown trout;
    - (b) In Topaz Lake, rainbow trout, cutthroat trout, brown trout, kokone salmon and silver salmon;
    - (c) In the West Walker River from Wellington to the state line, rainbow trout and brown trout;
    - (d) In the West Walker River from its confluence with the East Walker River to Wellington, brown trout and rainbow trout;
    - (e) In Sweetwater Creek, brown trout, brook trout and rainbow trout;
    - (f) In the East Walker River at the state line, mountain white fish, rainbow trout and brown trout;
    - (g) In the East Walker River from its confluence with the West Walker River to the state line, brown trout and rainbow trout;
    - (h) In the Walker River from Weber Reservoir to the confluence of the East Walker River and West Walker River, channel catfish and largemouth bass;
    - (i) In the Walker River from the inlet to Walker Lake to Weber Reservoir, channel catfish, largemouth bass, adult Lahontan cutthroat trout from April through May, and adult rainbow trout from April through June; and
    - (j) In Desert Creek, brown trout, brook trout and rainbow trout.
- (Added to NAC by Environmental Comm'n, eff. 9-13-85)—(Substituted in revision for NAC 445.13424)

# NAC 445A.160 West Walker River at the state line.

## STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River at the state line. The limits of this table apply only to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	July-Oct.: $\leq 23^\circ\text{C}$ $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.6$ S.V.: $\leq 0.9$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: $\leq 60$	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 165$ S.V.: $\leq 220$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 15$ S.V.: $\leq 20$	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 100$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 10, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13425)

# NAC 445A.161 Topaz Lake.

## STANDARDS OF WATER QUALITY Topaz Lake

Control Point at Topaz Lake. The limits of this table apply at various points in Topaz Lake.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Apr.: $\leq 13^\circ C$ May-Jun.: $\leq 17^\circ C$ Jul.-Oct.: $\leq 23^\circ C$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.05$ S.V.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.6$ S.V.: $\leq 1.0$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	A-Avg.: $\leq 6.0$ S.V.: $\leq 9.0$	S.V.: $\leq 25$	Aquatic life <sup>b</sup> .
Turbidity - NTU	A-Avg.: $\leq 3.0$ S.V.: $\leq 5.0$	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 105$ S.V.: $\leq 120$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 7$ S.V.: $\leq 10$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $CaCO_3$ ) - me/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 25$ S.V.: $\leq 100$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 11, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13426)

# NAC 445A.162 West Walker River near Wellington.

## STANDARDS OF WATER QUALITY West Walker River

Control Point at the West Walker River near Wellington. The limits of this table apply from the West Walker River near Wellington to the West Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Apr.: $\leq 13^\circ C$ May-Jun.: $\leq 17^\circ C$ Jul.-Oct.: $\leq 23^\circ C$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.07$ S.V.: $\leq 0.10$	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.6$ S.V.: $\leq 1.0$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 175$ S.V.: $\leq 60$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 16$ S.V.: $\leq 30$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $CaCO_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 150$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 12, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13427)

**NAC 445A.163 West Walker River above confluence with East Walker River at Nordyke Road.**

**STANDARDS OF WATER QUALITY  
West Walker River**

Control Point at the West Walker River above the confluence with the East Walker River at Nordyke Road. The limits of this table apply to the West Walker River above its confluence with the East Walker River to the control point mentioned in NAC 445A.162 (near Wellington).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	S.V.: $\leq 0.15$	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.0$ S.V.: $\leq 1.2$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	e	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 330$ S.V.: $\leq 425$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 22$ S.V.: $\leq 28$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 125$ S.V.: $\leq 350$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 13, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13428)

# NAC 445A.164 Sweetwater Creek.

## STANDARDS OF WATER QUALITY Sweetwater Creek

Control Point at Sweetwater Creek. The limits of this table apply to Sweetwater Creek from its confluence with the East Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— —	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrates A-Avg.: $\leq 0.25$ S.V.: $\leq 0.45$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply <sup>b</sup> .
Total Dissolved Solids - mg/l	A-Avg.: $\leq 220$ S.V.: $\leq 300$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 5$ S.V.: $\leq 7$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	—	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 14, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.1343)

# NAC 445A.165 East Walker River at the state line.

## STANDARDS OF WATER QUALITY East Walker River:

Control Point at the East Walker River at the state line. The limits of this table apply only to the East Walker River at the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.8$ S.V.: $\leq 1.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	S.V.: $\leq 30$	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 175$ S.V.: $\leq 210$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 5$ S.V.: $\leq 7$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 2$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 20$ S.V.: $\leq 50$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 16, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13431)



# NAC 445A.166 East Walker River south of Yerington.

## STANDARDS OF WATER QUALITY East Walker River

Control Point at the East Walker River south of Yerington above the confluence with the West Walker River (Nordyke Road). The limits of this table apply to the East Walker River south of Yerington above its confluence with the West Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-April: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: $\leq 0.16$ S.V.: $\leq 0.39$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.9$ S.V.: $\leq 1.7$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	--	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	--	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	--	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	--	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 320$ S.V.: $\leq 390$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 13$ S.V.: $\leq 19$	-- S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	--	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	--	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	--	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 75$ S.V.: $\leq 350$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 15, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13432)

# **NAC 445A.167 Walker River at inlet to Weber Reservoir.**

## **STANDARDS OF WATER QUALITY Walker River**

Control Point at the Walker River at the inlet to Weber Reservoir. The limits of this table apply to the Walker River from the inlet to Weber Reservoir to the confluence of the West Walker River and the East Walker River.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 13^\circ\text{C}$ Apr.-Jun.: $\leq 14^\circ\text{C}$ Jul.-Oct.: $\leq 19^\circ\text{C}$  $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l		A-Avg.: $\leq 0.26$ S.V.: $\leq 0.40$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.2$ S.V.: $\leq 1.5$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 5$ Ammonia S.V.: $\leq 0.6$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l		S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 400$ S.V.: $\leq 450$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 30$ S.V.: $\leq 35$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: $\leq 95$ S.V.: $\leq 110$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	SAR A-Avg.: $\leq 3$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 100$ S.V.: $\leq 200$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 17, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13433)

STANDARDS OF WATER QUALITY  
Walker River

Control Point at Schurz Bridge. The limits of this table apply from the inlet to Walker Lake to Weber Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 13^\circ\text{C}$ Apr.-Jun.: $\leq 23^\circ\text{C}$ Jul.-Oct.: $\leq 28^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.17$ S.V.: $\leq 0.23$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.2$ S.V.: $\leq 1.5$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1$ Ammonia S.V.: $\leq 0.06$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-Apr.: $\geq 6.0$ May-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	Ann. Avg.: $\leq 60$	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 390$ S.V.: $\leq 570$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 23$ S.V.: $\leq 34$	— S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 250$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	SAR A-Avg.: $\leq 3$	A-Avg.: $\leq 3$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 110$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

(Added to NAC by Environmental Comm'n, eff. 9-13-85)—(Substituted in revision for NAC 445.13434)

# NAC 445A.169 Desert Creek.

## STANDARDS OF WATER QUALITY Desert Creek

Control Point at Desert Creek. The limits of this table apply to Desert Creek from its confluence with the West Walker River to the state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	-	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	S.V.: $\leq 0.13$	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrates A-Avg.: $\leq 0.20$ S.V.: $\leq 0.27$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	- -	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	-	S.V.: $\leq 80$	Aquatic life <sup>b</sup> .
Turbidity - NTU	-	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	-	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 110$ S.V.: $\leq 130$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 5$ S.V.: $\leq 7$	- S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	-	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	-	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 100$ S.V.: $\leq 200$	$\leq 200/400^e$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 18, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 9-13-85)—(Substituted in revision for NAC 445.13435)

**NAC 445A.170 Beneficial uses for part of Colorado River, Beaver Dam Wash and certain creeks.**

1. The standards of water quality for:
  - (a) The Colorado River below Davis Dam are prescribed in NAC 445A.192;
  - (b) Chiatovich Creek in Esmeralda County are prescribed in NAC 445A.171;
  - (c) Indian Creek are prescribed in NAC 445A.172;
  - (d) Leidy Creek are prescribed in NAC 445A.173;
  - (e) Beaver Dam Wash are prescribed in NAC 445A.178;
  - (f) Snake Creek are prescribed in NAC 445A.179; and
  - (g) The Colorado River below Hoover Dam are prescribed in NAC 445A.193.
2. The beneficial uses for these areas are:
  - (a) Irrigation;
  - (b) Watering of livestock;
  - (c) Recreation involving contact with the water;
  - (d) Recreation not involving contact with the water;
  - (e) Industrial supply;
  - (f) Municipal or domestic supply, or both;
  - (g) Propagation of wildlife; and
  - (h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.134355)

# NAC 445A.171 Chiatovich Creek.

## STANDARDS OF WATER QUALITY Chiatovich Creek

Control Point above highway maintenance station. The limits of this table apply above the highway maintenance station.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-April: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ July-October: $\leq 23^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	-	S.V.: 7.0 - 8.3 3pH: $\pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.04$ S.V.: $\leq 0.06$	A-Avg.: $\leq 0.1$ -	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 6$ S.V.: $\leq 8$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.6$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-May: $\geq 6.0$ June-October: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	-	S.V.: $\leq 25$	Aquatic life <sup>b</sup>
Turbidity - NTU	-	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	-	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 50$ S.V.: $\leq 60$	A-Avg.: $\leq 500$ -	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 2$ S.V.: $\leq 3$	- S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	A-Avg.: $\leq 4$ S.V.: $\leq 5$	- S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup>
Sodium - SAR	A-Avg.: $\leq 1$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 100$ S.V.: $\leq 200$	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5. Table 19, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13436)

STANDARDS OF WATER QUALITY  
Indian Creek

Control Point near center of Section 9, T.2 S., R.34 E. The limits of this table apply above the center of Section 9, T.2 S., R.34 E.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	— S.V.: $\leq 0.13$	A-Avg.: $\leq 0.1$ —	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate S.V.: $\leq 0.45$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 5$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 225$ S.V.: $\leq 300$	A-Avg.: $\leq 500$ —	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 6$ S.V.: $\leq 10$	— S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 100$ S.V.: $\leq 200$	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- b. The most restrictive beneficial use.
- c. Increase in color must not be more than 10 PCU above natural conditions.
- d. Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 20, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13437)

NAC 445A.173 Leidy Creek.

STANDARDS OF WATER QUALITY  
Leidy Creek

Control Point at hydroelectric plant. The limits of this table apply above the hydroelectric plant.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \leq 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>c</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.13$ S.V.: $\leq 0.03$	A-Avg.: $\leq 0.1$ —	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate A-Avg.: $\leq 0.18$ S.V.: $\leq 0.22$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life, water contact recreation, stock watering, wildlife propagation <sup>b</sup> and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 5$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 135$ S.V.: $\leq 150$	A-Avg.: $\leq 500$ —	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: $\leq 3$ S.V.: $\leq 5$	— S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	—	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 100$ S.V.: $\leq 200$	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 21, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13438)



**NAC 445A.174 Beneficial uses for Virgin River, Meadow Valley Wash and part of Muddy River.** The standards of water quality for the Virgin River, Muddy River below Glendale and Meadow Valley Wash are prescribed in NAC 445A.175, 445A.176, 445A.177, 445A.211 and 445A.212. The beneficial uses for these areas are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Propagation of wildlife; and
6. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13439)

# **NAC 445A.175 Virgin River at Mesquite.**

## **STANDARDS OF WATER QUALITY Virgin River**

Control Point at Mesquite. The limits of this table apply from Mesquite to the Arizona state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C. Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun.: $\leq 21^\circ\text{C}$ Jul.-Oct.: $\leq 32^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> .
pH Units	—	S.V.: 7.0 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.9$ S.V.: $\leq 1.6$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$ Ammonia S.V.: $\leq 0.06$ (un-ionized)	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU	—	c	Aquatic life <sup>b</sup> .
Color - PCU	—	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 300$ S.V.: $\leq 550$	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.1344)

# **NAC 445A.176 Virgin River at the state line near Littlefield.**

## **STANDARDS OF WATER QUALITY Virgin River**

Control Point at the state line (near Littlefield, Arizona). The limits of this table apply at the Arizona-Nevada state line (near Littlefield, Arizona).

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov - Jun: $\leq 1^\circ\text{C}$ Jul - Oct: $\leq 2^\circ\text{C}$  $\Delta T \leq 6^\circ\text{C}$	Aquatic life <sup>b</sup> .
pH - Standard Units	-	S.V.: 7.0 - 9.0 $\Delta\text{pH}: \leq 0.5$ Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq .06$ S.V.: $\leq .1$	A-Avg.: $\leq .1$ -	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq .4$ S.V.: $\leq 3.2$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$ Ammonia S.V.: $\leq .06$ (un-ionized)	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU	-	c	Aquatic life <sup>b</sup> .
Color - PCU	-	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	-	e	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: $\leq 450$ S.V.: $\leq 1800$	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 22.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13441)

# NAC 445A.177 Virgin River at Riverside.

## STANDARDS OF WATER QUALITY Virgin River

Control Point at Riverside. The limits of this table apply from the river mouth at Lake Mead to Mesquite

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C. Maximum  ΔT	  ΔT = 0°C	Nov.-Jun.: ≤21°C Jul.-Oct.: ≤32°C  ΔT ≤°C	Aquatic life <sup>a</sup> .
pH Units	-	S.V.: 7.0 - 9.0 ΔpH: ±0.5 Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l	-	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤2.9 S.V.: ≤6.1	Nitrate S.V.: ≤90 Nitrite S.V.: ≤5.0 Ammonia S.V.: ≤.06 (un-ionized)	Aquatic life <sup>b</sup> stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: ≥5.0	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU	-	e	Aquatic life <sup>b</sup> .
Color - PCU	-	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	-	c	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	-	less than 25 % change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤625 S.V.: ≤1250	A.G.M.: ≤1000 S.V.: ≤2000	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 22.2, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13442)

# **NAC 445A.178 Beaver Dam Wash.**

## **STANDARDS OF WATER QUALITY Beaver Dam Wash**

Control Point above Schroeder Reservoir. The limits of this table apply above Schroeder Reservoir.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-Jun.: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$  $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \leq 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.01$ S.V.: $\leq 0.013$	A-Avg.: $\leq 0.05$ —	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate S.V.: $\leq 22$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	— —	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 5$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	—	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 23, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13443)

# **NAC 445A.179 Snake Creek.**

## **STANDARDS OF WATER QUALITY Snake Creek**

Control Point above fish hatchery. The limits of this table apply above the fish hatchery.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  ΔT <sup>a</sup>	  ΔT = 0°C	Nov.-Apr.: ≤13°C May-Jun.: ≤17°C Jul.-Oct.: ≤23°C  ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation
pH Units	--	S.V.: 7.0 - 8.3 ΔpH: ≤0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply
Total Phosphates (as P) - mg/l	A-Avg.: ≤.05 S.V.: ≤.08	A-Avg.: ≤0.1	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation
Nitrogen Species (N) - mg/l	Nitrate A-Avg.: ≤.22 S.V.: ≤.44	Nitrate S.V.: ≤10 Nitrite S.V.: ≤.06 Ammonia S.V.: ≤.02 (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-- --	S.V.: Nov.-May: ≥6.0 Jun.-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	--	S.V.: ≤25	Aquatic life <sup>b</sup> .
Turbidity - NTU	--	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	--	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	A-Avg.: ≤100 S.V.: ≤125	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Chlorides - mg/l	A-Avg.: ≤10 S.V.: ≤20	-- S.V.: ≤250	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Sulfate - mg/l	--	S.V.: ≤250	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	--	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	--	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform- No./100 ml	A.G.M.: ≤100 S.V.: ≤200	≤200/400 <sup>d</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Increase in color must not be more than 10 PCU above natural conditions.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5. Table 24, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13445)

**NAC 445A.180 Smoke Creek.**

**WATER QUALITY STANDARDS  
Smoke Creek**

Control Point: Approximately 30 miles east of Susanville, California.

Temperature °C			
Single Value, Summer .....	not more than		25.0
Single Value, Winter .....	not more than		14.0
Maximum allowable temperature increase above natural receiving water temperature: .....			3°C
pH Units			
Annual Median .....	within range		7.0-8.0
Single Value .....	within range		6.5-8.5
Dissolved Oxygen - mg/l			
Average (June through September) .....	not less than		8.0
Single Value .....	not less than		7.5
BOD - mg/l			
Single Value .....	not more than		5.0
Chlorides - mg/l			
Single Value .....	not more than		10.0
Phosphates (PO <sub>4</sub> ) - mg/l			
Annual Average .....	not more than		0.5
Single Value .....	not more than		0.7
Nitrates (NO <sub>3</sub> ) - mg/l			
Single Value .....	not more than		5.0
Total Dissolved Solids - mg/l			
Annual Average .....	not more than		225.0
Single Value .....	not more than		275.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

**Fecal Coliform - The more stringent of the following apply:**

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 36, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.1346)

NAC 445A.181 Bronco Creek.

WATER QUALITY STANDARDS  
Bronco Creek

Control Point: At Hirschdale Road.

Temperature °C		
Average (June through September) .....	not more than	20.0
Single Value, Summer .....	not more than	25.0
Single Value, Winter .....	not more than	13.0
Maximum allowable temperature increase above natural receiving water temperature:.....		none
pH Units		
Annual Median .....	within range	7.0-8.5
Single Value .....	within range	6.5-8.5
Dissolved Oxygen - mg/l		
Average (June through September) .....	not less than	7.0
Single Value .....	not less than	6.0
Chlorides - mg/l		
Single Value .....	not more than	15.0
Phosphates (PO <sub>4</sub> ) - mg/l		
Annual Average .....	not more than	0.3
Single Value .....	not more than	0.4
Nitrates (NO <sub>3</sub> ) - mg/l		
Single Value .....	not more than	2.0
Total Dissolved Solids - mg/l		
Annual Average .....	not more than	225.0
Single Value .....	not more than	300.0
Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.		
Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.		

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 37, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13461)



NAC 445A.182 Gray Creek.

WATER QUALITY STANDARDS  
Gray Creek

Control Point: At Hirschdale Road.

Temperature °C

Average (June through September) .....	not more than	20.0
Single Value, Summer .....	not more than	25.0
Single Value, Winter .....	not more than	13.0

Maximum allowable temperature increase above natural receiving water temperature:..... none

pH Units

Annual Median .....	within range	7.0-8.5
Single Value .....	within range	6.5-8.5

Dissolved Oxygen - mg/l

Average (June through September) .....	not less than	8.0
Single Value .....	not less than	7.0

Chlorides - mg/l

Single Value .....	not more than	10.0
--------------------	---------------	------

Phosphates (PO<sub>4</sub>) - mg/l

Annual Average .....	not more than	0.3
Single Value .....	not more than	0.4

Nitrates (NO<sub>3</sub>) - mg/l

Single Value .....	not more than	3.0
--------------------	---------------	-----

Total Dissolved Solids - mg/l

Annual Average .....	not more than	125.0
Single Value .....	not more than	165.0

Color - Color must not exceed that characteristic of natural conditions by more than 10 units on the Platinum-Cobalt Scale.

Turbidity - Turbidity must not exceed that characteristic of natural conditions by more than 10 Jackson Units.

Fecal Coliform - The more stringent of the following apply:

The fecal coliform concentration must not exceed a geometric mean of 1000 per 100 milliliters nor may more than 20 percent of total samples exceed 2400 per 100 milliliters.

The annual geometric mean of fecal coliform concentration must not exceed that characteristic of natural conditions by more than 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed that characteristic of natural conditions by more than 400 per 100 milliliters.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 38, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(Substituted in revision for NAC 445.13462)

**NAC 445A.183 Beneficial uses for Truckee River from Pyramid Lake to the state line.** The water quality standards for the Truckee River from Pyramid Lake to the state line are prescribed in NAC 445A.184 to 445A.190, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life. The aquatic life of major concern are:
  - (a) At the state line, all life stages of mountain whitefish, rainbow trout and brown trout.
  - (b) From the state line to Idlewild, all life stages of mountain whitefish, rainbow trout and brown trout.
  - (c) From Idlewild to East McCarran, all life stages of mountain whitefish, rainbow trout and brown trout.
  - (d) From East McCarran to Lockwood, juvenile and adult rainbow trout and juvenile and adult brown trout.
  - (e) From Lockwood to Derby, juvenile and adult rainbow trout and juvenile and adult brown trout. However, the species which are sensitive to temperature are expected to seek a cooler microhabitat during July and August.
  - (f) From Derby to Wadsworth, early spawning Lahontan cutthroat trout and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.
  - (g) From Wadsworth to Pyramid Lake, early spawning Lahontan cutthroat trout and their incubation, larvae, juveniles and migration, from May through June, depending on hydrological conditions.

(Added to NAC by Environmental Comm'n. eff. 10-25-84; A 9-25-90; 10-29-93)—  
(Substituted in revision for NAC 445.134625)

# NAC 445A.184 Truckee River at the state line.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at the state line. The limits of this table apply only at the California-Nevada state line

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum  ΔT <sup>a</sup>	  ΔT = 0°C	Nov.-Mar.: ≤7°C Apr.-May.: ≤13°C June: ≤17°C July: ≤21°C Aug.: ≤23°C Sep.-Oct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.0 - 8.3	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-Mar.: ≥6.0 Apr.-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤7.0 S.V.: ≤10.0	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.03	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: ≤0.01	S.V.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.3 S.V.: ≤0.43	Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤.04 Ammonia S.V.: ≤.02 (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: ≤70.0 S.V.: ≤85.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤5.0 S.V.: ≤9.0	S.V.: ≤10.00	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤5	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: ≤30.0 S.V.: ≤150.0	≤200-400 <sup>c</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V.: ≤5	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	-	A-Avg.: ≤.5 S.V.: ≤3.0	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 39, eff. 5-2-78:  
A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in  
revision for NAC 445.13463)

# NAC 445A.185 Truckee River at Idlewild.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Idlewild. The limits of this table apply from the control point at Idlewild to the state line control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  ΔT <sup>a</sup>	  ΔT = 0°C	Nov.-Mar.: ≤7°C Apr.-May: ≤13°C June: ≤17°C July: ≤21°C Aug.: ≤22°C Sep.-Oct.: ≤23°C ΔT ≤2°C	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.2 - 8.3	S.V.: 6.5 - 9.0 ΔpH: ±0.5 Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-Mar.: ≥6.0 Apr.-Oct.: ≥5.0	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤7.0 S.V.: ≤10.0	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: ≤0.05	A-Avg.: ≤0.10	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: ≤0.02	S.V.: ≤0.05	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: ≤0.3 S.V.: ≤0.43	Nitrate S.V.: ≤2.0 Nitrite S.V.: ≤0.04 Ammonia S.V.: ≤0.02 (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: ≤80.0 S.V.: ≤95.0	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: ≤6.0 S.V.: ≤9.0	S.V.: ≤10	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: ≤75	Municipal or domestic supply.
Alkalinity (as CaCO <sub>3</sub> ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No. 100 ml	A.G.M.: ≤50.0 S.V.: ≤200.0	≤200/400 <sup>c</sup>	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: ≤15.0	S.V.: ≤5	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: ≤7.0 S.V.: ≤8.0	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: ≤0.5 S.V.: ≤0.6	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	—	A-Avg.: ≤2.5 S.V.: ≤3.0	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5. Table 40, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13465)

# NAC 445A.186 Truckee River at East McCarran.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at East McCarran Boulevard Bridge. The limits of this table apply from the East McCarran control point to the Idlewild control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 7^\circ\text{C}$ Apr.-May: $\leq 13^\circ\text{C}$ June: $\leq 17^\circ\text{C}$ July: $\leq 21^\circ\text{C}$ Aug.: $\leq 22^\circ\text{C}$ Sep.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.0 - 8.5	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5 \text{ Max.}$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-Mar.: $\geq 6.0$ Apr.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 7.0$ S.V.: $\leq 10.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.05$	A-Avg.: $\leq 0.10$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Ortho Phosphate (P) - mg/l	S.V.: $\leq 0.02$	S.V.: $\leq 0.05$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.3$ S.V.: $\leq 0.43$	Nitrate S.V.: $\leq 2.0$ Nitrite S.V.: $\leq 0.04$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 90.0$ S.V.: $\leq 120.0$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: $\leq 6.0$	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No. 100 ml	A.G.M.: $\leq 75.0$ S.V.: $\leq 350.0$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 15.0$	S.V.: $\leq 5$	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: $\leq 7.0$ S.V.: $\leq 8.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 0.5$ S.V.: $\leq 0.6$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.
BOD - mg/l	—	A-Avg.: $\leq 3.0$ S.V.: $\leq 5.0$	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 41, eff. 5-2-78: A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13466)

# NAC 445A.187 Truckee River at Lockwood Bridge.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Lockwood Bridge. The limits of this table apply from the control point at Lockwood to the East McCarran control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 13^\circ\text{C}$ Apr.: $\leq 14^\circ\text{C}$ May: $\leq 22^\circ\text{C}$ June-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 0^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.1 - 8.5	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-Mar.: $\geq 6.0$ Apr.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 6.0$ S.V.: $\leq 0.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	-	A-Avg.: $\leq 0.05$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	-	TN A-Avg.: $\leq 0.75$ TN S.V.: $\leq 1.2$ Nitrate S.V.: $\leq 2.0$ Nitrite S.V.: $\leq 0.04$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 10.0$ S.V.: $\leq 60.0$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	-	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 75$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 90.0$ S.V.: $\leq 300.0$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 5.0$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: $\leq 9.0$ S.V.: $\leq 6.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 1.5$ S.V.: $\leq 0$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard. The  $\Delta T$  of  $\leq 0^\circ\text{C}$  is only for the Reno and Sparks Joint Wastewater Treatment Plant.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cut-throat and Lahontan cutthroat trout, the standard is  $14^\circ\text{C}$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 42, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13467)

# NAC 445A.188 Truckee River at Derby Dam.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Derby Dam. The limits of this table apply from Derby Dam to the Lockwood Bridge control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum  $\Delta T^a$	  $\Delta T = 0^\circ\text{C}$	Nov.-Mar.: $\leq 13^\circ\text{C}$ Apr.: $\leq 21^\circ\text{C}^e$ May: $\leq 23^\circ\text{C}^{e,f}$ June-Oct.: $\leq 25^\circ\text{C}^{e,f}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>3</sup> and water contact recreation.
pH Units	7.0 - 8.6	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation <sup>3</sup> , wildlife propagation <sup>3</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-Mar.: $\geq 6.0$ Apr.-Oct.: $\geq 5.0$	Aquatic life <sup>3</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 1.0$ S.V.: $\leq 30.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>3</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.05$	Aquatic life <sup>3</sup> , water contact recreation <sup>3</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	—	TN A-Avg.: $\leq 0.75$ TN S.V.: $\leq 1.2$ Nitrate S.V.: $\leq 0$ Nitrite S.V.: $\leq 0.04$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>3</sup> , water contact recreation <sup>3</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 15.0$ S.V.: $\leq 65.0$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>3</sup> , irrigation and stock watering.
Turbidity - NTU	A-Avg.: $\leq 8.0$	S.V.: $\leq 10$	Aquatic life <sup>3</sup> and municipal or domestic supply.
Color - PCU	—	S.V.: $\leq 5$	Municipal or domestic supply.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>3</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 80.0$ S.V.: $\leq 250$	$\leq 200/400^c$	Water contact recreation <sup>3</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 4.0$ S.V.: $\leq 40.0$	S.V.: $\leq 50$	Aquatic life <sup>3</sup> .
Sulfate - mg/l	A-Avg.: $\leq 9.0$ S.V.: $\leq 46.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>3</sup> .
Sodium - SAR	A-Avg.: $\leq 1.5$ S.V.: $\leq 2.0$	A-Avg.: $\leq 3$	Irrigation <sup>3</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cui-ui and Lahontan cutthroat trout, the standard is  $14^\circ\text{C}$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ\text{C}$ , even though that temperature is not attainable at all times.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 42.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13468)

# NAC 445A.189 Truckee River at Wadsworth Gage.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Wadsworth Gage The limits of this table apply from the Wadsworth Gage control point to Derby Dam

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Mar.: $\leq 13^\circ C^e$ Apr.-June: $\leq 14^\circ C^e$ July-Oct.: $\leq 25^\circ C^f$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> and water contact recreation
pH Units	7.1 - 8.6	S.V.: 6.5 - 9.0 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-June: $\geq 6.0$ July-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 20.0$ S.V.: $\leq 28.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	-	A-Avg.: $\leq 0.05$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	-	TN A-Avg.: $\leq 0.75$ TN S.V.: $\leq 1.2$ Nitrate S.V.: $\leq 1.0$ Nitrite S.V.: $\leq 0.04$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 245.0$ S.V.: $\leq 310.0$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	-	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	d	S.V.: $\leq 5$	Municipal or domestic supply.
Alkalinity (as $CaCO_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 250$	$\leq 200/400^g$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 25.0$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: $\leq 39.0$ S.V.: $\leq 46.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 1.5$ S.V.: $\leq 2.0$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cut-throat and Lahontan cutthroat trout, the standard is  $13^\circ C$  from November through March and  $14^\circ C$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ C$ , even though that temperature is not attainable at all times.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.1347)



# NAC 445A.190 Truckee River at Pyramid Lake.

## STANDARDS OF WATER QUALITY Truckee River

Control Point at Pyramid Lake. The limits of this table apply from the mouth of the Truckee River at Pyramid Lake to the Wadsworth Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Mar.: $\leq 13^\circ C^e$ Apr.-June: $\leq 14^\circ C^e$ July-Oct.: $\leq 15^\circ C^e$ $\Delta T \leq 0^\circ C$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	7.3 - 9.0	S.V.: 6.5 - 9.0 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-June: $\geq 6.0$ July-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 105.0$ S.V.: $\leq 130.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphates (as P) - mg/l	-	A-Avg.: $\leq 0.05$	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	-	TN A-Avg.: $\leq 0.75$ TN S.V.: $\leq 1.2$ Nitrate S.V.: $\leq 0$ Nitrite S.V.: $\leq 0.4$ Ammonia S.V.: $\leq 0.2$ (un-ionized)	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Total Dissolved Solids - mg/l	A-Avg.: $\leq 415.0$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Turbidity - NTU	-	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	-	S.V.: $\leq 5$	Municipal or domestic supply.
Alkalinity (as $CaCO_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 40$ S.V.: $\leq 250$	$\leq 200/400^c$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Suspended Solids - mg/l	A-Avg.: $\leq 25.0$	S.V.: $\leq 50$	Aquatic life <sup>b</sup> .
Sulfate - mg/l	A-Avg.: $\leq 35.0$ S.V.: $\leq 106.0$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> .
Sodium - SAR	A-Avg.: $\leq 4$ S.V.: $\leq 9$	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- When flows are adequate to induce spawning runs of cut-throat and Lahontan cutthroat trout, the standard is  $13^\circ C$  from November through March and  $14^\circ C$  from April through June.
- The desired temperature for the protection of juvenile Lahontan cutthroat trout is  $21^\circ C$ , even though that temperature is not attainable at all times.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 43.1, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 10-25-84; 10-29-93)—(Substituted in revision for NAC 445.13471)

**NAC 445A.1905 Beneficial uses for Lake Tahoe.** The standards of water quality for Lake Tahoe are prescribed in NAC 445A.191. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Recreation involving contact with the water;
5. Industrial supply;
6. Propagation of wildlife;
7. Propagation of aquatic life, including a coldwater fishery;
8. Municipal or domestic supply, or both; and
9. Water of extraordinary ecological or aesthetic value.

(Added to NAC by Environmental Comm'n, eff. 11-9-95)

**NAC 445A.191 Lake Tahoe.**

**STANDARDS OF WATER QUALITY  
Lake Tahoe**

Control Point: Existing sampling points.

**pH Units**

Single Value ..... within range 7.0-8.4

**Dissolved Oxygen - Percent of Saturation**

Single Value ..... not less than 90.0

**Chlorides - mg/l**

Annual Average ..... not more than 3.0

Single Value ..... not more than 5.0

**Soluble Phosphorus - µg/l**

Annual Average ..... not more than 7.0

**Total Nitrogen (as N) - mg/l**

Annual Average ..... not more than 0.25

Single Value ..... not more than 0.32

**Total Soluble Inorganic Nitrogen - µg/l**

Annual Average ..... not more than 25.0

**Nitrite (as N) - mg/l**

Single Value ..... not more than 0.06

**Ammonia-unionized - mg/l**

Single Value ..... not more than 0.003

**Escherichia Coli - No./100 ml**

Single Value ..... not more than 126.0

## Coliform Organisms - MPN/100 ml

A density not greater than the values shown in the following table:

	Median	Maximum
<b>Undeveloped Lake Front Areas</b>		
10 yards offshore .....	5.0	32.0
100 yards offshore.....	3.0	15.0
<b>Developed Lake Front Areas</b>		
10 yards offshore .....	240.0	700.0
100 yards offshore.....	15.0	64.0
<b>Directly Influenced by Streams</b>		
10 yards offshore .....	240.0	700.0
100 yards offshore.....	32.0	240.0

## Temperature °C

Single Value (October 1 through May 31).....	not more than	10.0
Single Value (June 1 through September 30).....	not more than	20.0

Permissible temperature increase above natural receiving water temperature ..... none

**Algal Growth Potential** - The mean annual algal growth potential at any point in the lake must not be greater than twice the mean annual algal potential at a limnetic reference station and using analytical methods determined jointly with the Environmental Protection Agency, Region IX.

## Plankton Count - number per ml

Average (June through September).....	not to exceed	100.0
Single Value.....	not to exceed	500.0

## Specific Electrical Conductance micromhos per cm at 20°

Annual Average .....	not to exceed	95.0
Single Value.....	not to exceed	105.0

## Total Dissolved Solids - mg/l

Annual Average .....	not more than	60.0
Single Value.....	not more than	70.0

## Sulfate - mg/l

Single Value.....	not more than	2.0
-------------------	---------------	-----

## Sodium - SAR

Annual Average .....	not more than	8.0
----------------------	---------------	-----

**Clarity** - The vertical extinction coefficient must be less than 0.08 per meter when measured at any depth below the first meter. Turbidity must not exceed 3 NTU at any point of the lake too shallow to determine a reliable extinction coefficient.

**Turbidity** - To minimize turbidity levels in Lake Tahoe and tributary streams and control erosion:

1. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.
2. The discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to lands below the high water rim of Lake Tahoe or along any

tributary to Lake Tahoe in a manner which will cause the discharge of the waste materials to Lake Tahoe or any tributary thereto is prohibited.

3. The placement or man-made disturbance of material below the high water rim of Lake Tahoe or along any tributaries to Lake Tahoe in a manner which will cause the discharge of solid or liquid waste materials including soil, silt, clay, sand and other organic and earthen materials to Lake Tahoe or any tributary thereto is prohibited.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5. Table 44, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-9-95)

**NAC 445A.1912 Beneficial uses for tributaries to Lake Tahoe.** The standards of water quality for tributaries to Lake Tahoe are prescribed in NAC 445A.1915 and 445A.1917. The beneficial uses for those tributaries are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Recreation involving contact with the water;
5. Industrial supply;
6. Propagation of wildlife;
7. Propagation of aquatic life, including a coldwater fishery;
8. Municipal or domestic supply, or both; and
9. Enhancement of water quality.

(Added to NAC by Environmental Comm'n, eff. 11-9-95)

NAC 445A.1915 Tributaries to Lake Tahoe.

STANDARDS OF WATER QUALITY  
Lake Tahoe Tributaries

The following standards apply to all tributaries to Lake Tahoe located in Nevada:

pH Units	
Single Value.....	within range 6.5-9.0
Dissolved Oxygen - mg/l	
Single Value.....	not less than 6.0
Total Phosphates (as P) - mg/l	
Annual Average .....	not more than 0.05
Nitrate (as N) - mg/l	
Single Value.....	not more than 10.0
Nitrite (as N) - mg/l	
Single Value.....	not more than 0.06
Ammonia-unionized - mg/l	
Single Value.....	not more than 0.004
Total Suspended Solids - mg/l	
Single Value.....	not more than 25.0
Turbidity - NTU	
Single Value.....	not more than 10.0
Color - PCU	
Single Value.....	not more than 75.0
Total Dissolved Solids - mg/l	
Annual Average .....	not more than 500.0
Chloride - mg/l	
Single Value.....	not more than 250.0
Sulfate - mg/l	
Single Value.....	not more than 250.0
Sodium - SAR	
Annual Average .....	not more than 8.0
Escherichia Coli - No./100ml	
Single Value.....	not more than 126.0
Temperature °C	
Single Value (October 1 through May 31) .....	not more than 10.0
Single Value (June 1 through September 30) .....	not more than 20.0
(Added to NAC by Environmental Comm'n, eff. 11-9-95)	

NAC 445A.1917 Standards to maintain higher quality waters within tributaries to Lake Tahoe. The water quality of any tributary to Lake Tahoe which is higher than any applicable standard must be maintained at that higher quality. The following requirements to maintain existing higher quality waters apply at the following control points:

STANDARDS TO MAINTAIN HIGHER QUALITY WATERS WITHIN LAKE TAHOE TRIBUTARIES

Control Point:	pH: Standard Less	Total Phosphorus (as P - mg/l)	Total Nitrogen (as N - mg/l)	Chloride, Dissolved, mg/l	Total Dissolved Solids, mg/l	Total Suspended Solids, mg/l	Turbidity, NTU	Color, PCU
E. Fork Incline Cr. at Ski Incline *a	SV: 7.0-7.9		SV: 1.1 AA: 0.4	SV: 4.0 AA: 2.0	SV: 70 AA: 55			no increase > 10
W. Fork Incline Cr. at State Hwy. 431 *b	SV: 7.0-8.0		SV: 0.9 AA: 0.5	SV: 6.0 AA: 5.0	SV: 80 AA: 80	SV: N/A AA: 8.0	SV: 3.0 AA: 20	no increase > 10
Incline Creek at Lakeshore Drive *c	SV: 7.0-8.3		SV: 1.8 AA: 1.2	SV: 8.0 AA: 6.0	SV: 85 AA: 70			no increase > 10
E. Fork Third Cr. at State Hwy. 431 *d	SV: 7.0-8.0	SV: 0.045 AA: 0.045	SV: 0.5 AA: 0.3	SV: 5.0 AA: 3.0	SV: 80 AA: 65	SV: N/A AA: 20.0	SV: 3.0 AA: 2.0	no increase > 10
Third Creek at Lakeshore Drive *e	SV: 7.0-8.4		SV: 1.4 AA: 1.0	SV: 5.0 AA: 4.0	SV: 75 AA: 55			no increase > 10
Wood Creek at Lakeshore Drive *f	SV: 7.0-8.2		SV: 0.7 AA: 0.5	SV: 5.0 AA: 3.0	SV: 70 AA: 60			no increase > 10
Second Creek at Second Creek Dr. *g	SV: 7.0-8.0		SV: 0.3 AA: 0.2	SV: 5.0 AA: 3.0	SV: 70 AA: 65			no increase > 10
Second Creek at Lakeshore Drive *h	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 6.0 AA: 3.0	SV: 80 AA: 60			no increase > 10
First Creek at Dale and Knotty Pine Dr. *i	SV: 7.0-8.1	SV: 0.043 AA: 0.043	SV: 0.3 AA: 0.2	SV: 3.0 AA: 2.0	SV: 80 AA: 70		SV: 4.0 AA: 2.0	no increase > 10
First Creek at Lakeshore Drive *j	SV: 7.0-8.2		SV: 0.6 AA: 0.3	SV: 4.0 AA: 3.0	SV: 90 AA: 75		SV: 9.0 AA: 8.0	no increase > 10
Glenbrook Creek *k	SV: 7.0-8.2	SV: 0.060 AA: N/A	SV: 0.5 AA: 0.5			SV: 22.0 AA: N/A		no increase > 10
Logan House Creek *l	SV: 7.0-8.5	SV: 0.035 AA: 0.035	SV: 0.5 AA: 0.5			SV: 11.0 AA: N/A		no increase > 10
Eagle Rock Creek *m	SV: 7.0-8.4	SV: 0.050 AA: 0.045	SV: 0.2 AA: 0.3			SV: 12.0 AA: 12.0		no increase > 10
Edgewood Creek at Palisades Drive *n	SV: 7.0-8.4	SV: 0.100 AA: N/A	SV: 0.6 AA: 0.6			SV: N/A AA: N/A		no increase > 10
Edgewood Creek at Stateline *o	SV: 7.0-8.4	SV: 0.065 AA: N/A	SV: 0.4 AA: N/A			SV: 17.0 AA: N/A		no increase > 10

FOOTNOTES

- Control point at the East Fork of Incline Creek at the ski resort. The standards specified in the table apply to the East Fork of Incline Creek from the ski resort to the origin of the East Fork of Incline Creek.
- Control point at the West Fork of Incline Creek at State Highway 431. The standards specified in the table apply to the West Fork of the Incline Creek from State Highway 431 to the origin of the West Fork of Incline Creek.
- Control point at Incline Creek at Lakeshore Drive. The standards specified in the table apply to Incline Creek from the confluence with Lake Tahoe to the ski resort in the East Fork of Incline Creek and to State Highway 431 in the West Fork of Incline Creek.
- Control point at the East Fork of Third Creek at State Highway 431. The standards specified in the table apply from the East Fork of Third Creek at State Highway 431 to the origin of the East Fork of Third Creek.
- Control point at Third Creek at Lakeshore Drive. The standards specified in the table apply to Third Creek from the confluence with Lake Tahoe to State Highway 431 in the East Fork of Third Creek and to the origin of the West Fork of Third Creek.

- f. Control point at Wood Creek at Lakeshore Drive. The standards specified in the table apply to Wood Creek from the confluence with Lake Tahoe to the origin of Wood Creek.
- g. Control point at Second Creek at Second Creek Drive. The standards specified in the table apply to Second Creek from Second Creek Drive to the origin of Second Creek.
- h. Control point at Second Creek at Lakeshore Drive. The standards specified in the table apply to Second Creek from the confluence with Lake Tahoe to Second Creek Drive.
- i. Control point at First Creek at Dale and Knotty Pine Drives. The standards specified in the table apply to First Creek from Dale and Knotty Pine Drives to the origin of First Creek.
- j. Control point at First Creek and Lakeshore Drive. The standards specified in the table apply to First Creek from the confluence with Lake Tahoe to Dale and Knotty Pine Drives.
- k. Control point on Glenbrook Creek which is located 100 feet from the mouth of Glenbrook Creek at Glenbrook. The standards specified in the table apply to Glenbrook Creek from the confluence with Lake Tahoe to the origin of Glenbrook Creek.
- l. Control point on Logan House Creek which is located 0.3 miles upstream from U.S. Highway 50. The standards specified in the table apply to Logan House Creek from the confluence with Lake Tahoe to the origin of Logan House Creek.
- m. Control point on Eagle Rock Creek which is located 0.2 miles upstream from the confluence with Edgewood Creek. The standards specified in the table apply to Eagle Rock Creek from the confluence with Edgewood Creek to the origin of Eagle Rock Creek.
- n. Control point on Edgewood Creek at Palisades Drive which is located 50 feet downstream from the culvert at Palisades Drive. The standards specified in the table apply to Edgewood Creek from the control point upstream to the origins of Edgewood Creek.
- o. Control point on Edgewood Creek at Stateline which is located on the upstream side of the culvert on U.S. Highway 50. The standards specified in the table apply to Edgewood Creek from the confluence with Lake Tahoe upstream to the control point on Edgewood Creek at Palisades Drive.

(Added to NAC by Environmental Comm'n, eff. 11-9-95; A 11-27-96)

# NAC 445A.192 Colorado River below Davis Dam.

## STANDARDS OF WATER QUALITY Colorado River

Control Point below Davis Dam The limits of this table apply from the state line below Davis Dam to Lake Mohave Inlet.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Apr.: $\leq 13^\circ C$ May-June: $\leq 17^\circ C$ Jul.-Oct.: $\leq 23^\circ C$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	-	S.V.: 7.0 - 8.3 $\Delta pH: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq 0.02$ S.V.: $\leq 0.03$	A-Avg.: $\leq 0.05$ -	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate A-Avg.: $\leq 1.1$ S.V.: $\leq 1.6$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 0.06$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	-	S.V.: $\leq 5$	Aquatic life <sup>b</sup> .
Turbidity - NTU	-	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	-	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	-	c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as $CaCO_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 100$	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 46, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13495)



# NAC 445A.193 Colorado River below Hoover Dam.

## STANDARDS OF WATER QUALITY Colorado River

Control Point below Hoover Dam. The limits of this table apply from Lake Mohave Inlet to Hoover Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C- Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Apr.: $\leq 13^\circ\text{C}$ May-June: $\leq 17^\circ\text{C}$ Jul.-Oct.: $\leq 23^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> and water contact recreation.
pH Units	—	S.V.: 7.0 - 8.3 $\Delta\text{pH}: \pm 0.5$ Max.	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	A-Avg.: $\leq .02$ S.V.: $\leq .033$	A-Avg.: $\leq .05$ —	Aquatic life <sup>b</sup> , water contact recreation <sup>b</sup> , municipal or domestic supply and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.0$ S.V.: $\leq 1.5$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq .06$ Ammonia S.V.: $\leq .02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life <sup>b</sup> , water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: Nov.-May: $\geq 6.0$ Jun.-Oct.: $\geq 5.0$	Aquatic life <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Suspended Solids - mg/l	—	S.V.: $\leq 25$	Aquatic life <sup>b</sup> .
Turbidity - NTU	—	S.V.: $\leq 10$	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	—	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	—	c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 50$ S.V.: $\leq 100$	$\leq 200/400^d$	Water contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.13496)

**NAC 445A.194 Beneficial uses for area of Lake Mead not covered by NAC 445A.196.**  
The water quality standards for the area of Lake Mead which is not covered by NAC 445A.197 are prescribed in NAC 445A.195. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with the water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of wildlife; and
8. Propagation of aquatic life, including a warmwater fishery.

(Added to NAC by Environmental Comm'n. eff. 11-22-82; A 12-17-87)—(Substituted in revision for NAC 445.1350)

WATER QUALITY STANDARDS  
Lake Mead

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature - C 3T Single Value <sup>a</sup>	0	2	Warmwater fishery. <sup>b</sup>
pH - Standard Units Single Value	95% of samples not to exceed 9.3	Within Range 7.0 - 9.0	Bathing and water contact sports, <sup>b</sup> wildlife propagation, <sup>b</sup> warmwater fishery, aquatic life, drinking water supply, industrial supply, agricultural use.
Dissolved Oxygen - mg/l Single Value in 90% of Samples	-	25 mg/l in the epimnion 25 mg/l average in water column during periods of non-stratification	Warmwater fishery, <sup>b</sup> aquatic life, stock watering, bathing & contact sports, noncontact sports & esthetics, drinking water supply, wildlife propagation.
Chlorophyll <i>a</i> - µg/l	c, k		Bathing and water contact sports, <sup>b</sup> warmwater fishery, <sup>b</sup> aquatic life, <sup>b</sup> noncontact sports & esthetics, <sup>b</sup> drinking water supply. <sup>b</sup>
Un-ionized Ammonia - mg/l	-	d	Warmwater fishery, <sup>b</sup> aquatic life.
Total Dissolved Solids - mg/l Flow Weighted Annual Average Single Value	≤ 723 measured below Hoover Dam <sup>b</sup>	- ≤ 1000	Drinking water supply, <sup>b</sup> agricultural use.
Chloride - mg/l Single Value	e	≤ 400 <sup>f</sup>	Drinking water supply, <sup>b</sup> stock watering, wildlife propagation.
Sulfate - mg/l Single Value	e	≤ 500 <sup>f</sup>	Drinking water supply. <sup>b</sup>
Suspended Solids - mg/l Single Value	-	≤ 25	Warmwater fishery, <sup>b</sup> aquatic life, esthetics.
Nitrogen Species as N - mg/l Single Value in 90% of Samples	Total Inorganic Nitrogen ≤ 4.5	Nitrate Nitrite ≤ 10    ≤ 1	Drinking water supply, <sup>b</sup> stock watering, warmwater fishery, aquatic life, wildlife propagation.
Turbidity - NTU Single Value	f	≤ 25	Warmwater fishery, <sup>b</sup> aquatic life, drinking water supply, esthetics, bathing & water contact sports.
Fecal Coliform MF/100 ml	-	≤ 200/400 <sup>g</sup>	Bathing & water contact sports, <sup>b</sup> agricultural use, noncontact sports & esthetics, drinking water supply, wildlife propagation.
Color-Pt-Co Units Single Value	i		Esthetics, <sup>b</sup> drinking water supply. <sup>b</sup>

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- b. The most significant beneficial uses.
- c. Not more than one monthly mean in a calendar year at Station 3 may exceed 45 µg/l. The mean for chlorophyll *a* in summer (July-September) must not exceed 40 µg/l at Station 3, and the mean for 4 consecutive summer years must not exceed 30 µg/l. "Mean" indicates the average of not less than 2 samples per month. The samples must consist of the average of the data collected from not less than 3 sites within a cross section of Station 3 that are representative of the top 5 meters of the cross section. "Station 3" means the center of the channel at which the depth is from 16 to 18 meters.
- d. See footnote c to NAC 445A.197.
- e. The combination of this constituent with other constituents comprising TDS must not result in the violation of the TDS standards for Lake Mead and the Colorado River.
- f. Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
- g. Based on a minimum of not less than five samples taken over a 30-day period, the fecal coliform bacterial level must not exceed a log mean of 200 per 100 ml, nor must more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- h. The details of this standard are specified in the "1981 Review - Water Quality Standards for Salinity, Colorado River System," approved by the state environmental commission on June 8, 1982.
- i. Color must not exceed that characteristic of natural conditions by more than 10 units Platinum-Cobalt Scale.
- j. The Commission recognizes that at entrances of tributaries to this reach, localized violations of standards may occur.
- k. The mean for chlorophyll *a* in the growing season (April-September) must not exceed 5 µg/l in the open water of Boulder Basin, Virgin Basin, Gregg Basin and Pierce Basin. The single value must not exceed 10 µg/l for more than 10 percent of the samples. "Mean" indicates the average of not less than 2 samples per month.
- The "Guidelines for Formulating Water Quality Standards for the Interstate Waters of the Colorado River System," adopted January 13, 1967, are incorporated as a supplement to the standards for this stream.

(Added to NAC by Environmental Comm'n. eff. 11-22-82; A 12-17-87)—(Substituted in revision for NAC 445.1351)

**NAC 445A.196 Beneficial uses for Lake Mead from western boundary of Las Vegas Marina Campground to confluence of Las Vegas Wash.** The water quality standards for Lake Mead from the western boundary of the Las Vegas Marina Campground to the confluence of the Las Vegas Wash are prescribed in NAC 445A.197. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Propagation of wildlife; and
6. Propagation of aquatic life, including a warmwater fishery.

(Added to NAC by Environmental Comm'n. eff. 11-22-82; A 12-17-87)—(Substituted in revision for NAC 445.1352)

NAC 445A.197 Lake Mead from the western boundary of Las Vegas Marina Campground to the confluence of Las Vegas Wash. Control point at the Western Boundary of Las Vegas Marina Campground.

# WATER QUALITY STANDARDS

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C ΔT Single Value <sup>a</sup>	0	2	Warmwater fishery. <sup>b</sup>
pH - Standard Units Single Value	95% of samples not to exceed 8.9	Within Range 7.0 - 9.0	Wildlife propagation, <sup>b</sup> agricultural use, warmwater fishery, aquatic life, industrial supply.
Dissolved Oxygen - mg/l Single Value in 90% of samples	—	≥ 5 mg/l	Warmwater fishery, <sup>b</sup> aquatic life, stock watering, noncontact sports & esthetics, wildlife propagation.
Nitrogen Species as N-mg/l Single Value in 90% of samples	Total Inorganic Nitrogen ≤ 5.3	Nitrate ≤ 90	Warmwater fishery, <sup>b</sup> stock watering, wildlife propagation.
Single Value	—	Nitrite ≤ 10	Stock watering, <sup>b</sup> wildlife propagation. <sup>c</sup>
Un-ionized Ammonia as N - mb/l	—	2	Warmwater fishery, <sup>b</sup> aquatic life. <sup>b</sup>
Total Dissolved Solids - mg/l Single Value	e	≤ 3000	Stock watering, <sup>b</sup> irrigation.
Suspended Solids - mg/l Single Value	—	≤ 25	Warmwater fishery, <sup>b</sup> aquatic life, esthetics.
Turbidity - NTU Single Value	d	≤ 25	Warmwater fishery, <sup>b</sup> aquatic life, esthetics.
Fecal Coliform MF/100 ml Single Value	—	g	Agricultural use, <sup>b</sup> wildlife propagation, <sup>b</sup> noncontact sports & esthetics.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
  - The most significant beneficial uses.
  - The 4-day average for the concentration of un-ionized ammonia must not exceed 0.05 mg/l more often than once every 3 years. The daily value for this average must consist of the average of the data collected from not less than 3 sites within a cross section of Station 2 that are representative of the top 2.5 meters of the cross section, and must account for diurnal fluctuation. This average is not applicable to the area between Station 2 and the confluence of Las Vegas Wash. The single value must not exceed 0.45 mg/l more often than once every 3 years. When the temperature exceeds 20°C, these standards must be adjusted pursuant to methods accepted by the United States Environmental Protection Agency. "Station 2" means the center of the channel at which the depth is 10 meters.
  - Turbidity must not exceed that characteristic of natural conditions by more than 10 Nephelometric Units.
  - Any increase in Total Dissolved Solids must not result in a violation of the standards specified in the "1981 Review—Water Quality Standards for Salinity, Colorado River System," approved by the state environmental commission on June 8, 1982.
  - The Commission recognizes that because of discharges of tributaries that localized violations of standards may occur in this reach.
  - Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml, based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- The "Guidelines for Formulating Water Quality Standards for the Interstate Waters of the Colorado River System," adopted January 13, 1967, are incorporated as a supplement to the standards for this stream. The guidelines may be obtained from the division of environmental protection at no cost.

(Added to NAC by Environmental Comm'n. eff. 11-22-82; A 12-17-87; 7-5-94)

**NAC 445A.198 Beneficial uses for Las Vegas Wash from Pabco Road to city and county sewage treatment plants.** The water quality standards for the Las Vegas Wash from Pabco Road to the confluence of the discharges from the city and county sewage treatment plants are prescribed in NAC 445A.199. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Maintenance of a freshwater marsh;
5. Propagation of wildlife; and
6. Propagation of aquatic life, excluding fish. This does not preclude the establishment of a fishery.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87)—(Substituted in revision for NAC 445.1354)

**NAC 445A.199 Las Vegas Wash from Pabco Road to city and county sewage treatment plants.** Control point at Pabco Road. The limits in this table apply from Pabco Road to the confluence of the discharges from the city and county sewage treatment plants.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature $\Delta t$ ( $^{\circ}\text{C}$ ) Single Value <sup>a</sup>	0	—	—
pH Standard Units Single Value of 90% of samples	Within Range 6.5 - 7.8	Within Range 6.5 - 9.0	Wildlife propagation, <sup>d</sup> agricultural use. <sup>d</sup>
Dissolved Oxygen - mg/l	—	b	Stock watering, <sup>d</sup> noncontact sports & esthetics, <sup>c</sup> wildlife propagation. <sup>d</sup>
Nitrogen Species as N-mg/l Single Value in 90% of samples	Total Inorganic Nitrogen $\leq 20$	Nitrate $\leq 100$ Nitrite $\leq 10$	Stock watering, <sup>d</sup> wildlife propagation. <sup>d</sup>
Total Filterable Residue at 180° C-mg/l Single Value in 90% of samples	< 2500	$\leq 3000$	Stock water, <sup>d</sup> irrigation, freshwater marsh maintenance.
Fecal Coliform MF/100 ml	—	c	Noncontact sports, <sup>c</sup> esthetics, <sup>d</sup> wildlife propagation, agricultural use.

- a. Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone except during storm flow conditions.
- b. It is known that aerobic conditions are desirable for the beneficial uses of stock watering, noncontact sports and esthetics, and wildlife propagation. Existing conditions prevent the attainment of aerobic conditions as of September 9, 1982. Therefore aerobic conditions are established as a goal rather than a standard and is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
- c. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml, based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. The most significant beneficial uses.

(Added to NAC by Environmental Comm'n, eff. 11-22-82)—(Substituted in revision for NAC 445.1355)

**NAC 445A.200 Beneficial uses for Las Vegas Wash from Pabco Road to Lake Mead.** The water quality standards for the Las Vegas Wash from Pabco Road to the confluence of Las Vegas Wash with Lake Mead are prescribed in NAC 445A.201. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Maintenance of a freshwater marsh;
5. Propagation of wildlife; and
6. Propagation of aquatic life, excluding fish. This does not preclude the establishment of a fishery.

(Added to NAC by Environmental Comm'n, eff. 11-22-82; A 12-17-87)—(Substituted in revision for NAC 445.1356)



**WATER QUALITY STANDARDS**  
Las Vegas Wash

The limits in this table apply from Pabco Road to the confluence of the Las Vegas Wash with Lake Mead.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature $\Delta T$ ( $^{\circ}\text{C}$ ) Single Value <sup>a</sup>	0	—	—
pH - Standard Units Single Value of 90% of samples	Within Range 7.2 - 8.7	Within Range 7.0 - 9.0	Wildlife propagation, <sup>2</sup> agricultural use, <sup>4</sup>
Dissolved Oxygen - mg/l		b	Stock watering, <sup>4</sup> noncontact sports & esthetics, <sup>2</sup> wildlife propagation, <sup>2</sup>
Nitrogen Species as N-mg/l Single Value in 90% of samples	Total Inorganic Nitrogen $\leq 17$	Nitrate $\leq 100$ Nitrite $\leq 10$	Stock watering, <sup>2</sup> wildlife propagation, <sup>2</sup>
Total Filterable Residue at 180 $^{\circ}$ C-mg/l Single Value in 90% of samples	$\leq 2600$	$\leq 3000$	Stock water, <sup>2</sup> irrigation, freshwater marsh maintenance.
Fecal Coliform MF/100 ml	—	c	Noncontact sports, <sup>4</sup> esthetics, <sup>4</sup> wildlife propagation, agricultural use.

- a. Maximum allowable increase in temperature above receiving water temperature at the boundary of an approved mixing zone.
- b. It is known that aerobic conditions are desirable for the beneficial uses of stock watering, noncontact sports and esthetics, and wildlife propagation. Existing conditions prevent the attainment of aerobic conditions at this time. Therefore aerobic conditions are established as a goal rather than a standard and is not intended to preclude development of a limited fishery in selected areas. Aerobic conditions is intended to mean the absence of objectionable odors that may be caused by wastewater discharges in excess of existing odors.
- c. Any discharge from a point source into Las Vegas Wash must not exceed a log mean of 200 per 100 ml. based on a minimum of not less than five samples taken over a 30-day period nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- d. The most significant beneficial uses.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 47, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 11-22-82)—(Substituted in revision for NAC 445.1367)

**NAC 445A.202 Beneficial uses for Humboldt River.** The water quality standards for the Humboldt River from Woolsey to the source of the main stem are prescribed in NAC 445A.203 to 445A.208, inclusive. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation involving contact with the water;
4. Recreation not involving contact with the water;
5. Industrial supply;
6. Municipal or domestic supply, or both;
7. Propagation of aquatic life including warm-water fisheries; and
8. Propagation of wildlife.

(Added to NAC by Environmental Comm'n. eff. 6-29-84; A 9-25-90)—(Substituted in revision for NAC 445.13703)

# NAC 445A.203 Humboldt River near Osino.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point near Osino. The limits in this table apply from the control point near Osino to the upstream source of the main stem.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 0^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.3 S.V.: 7.0 - 8.5	S.V.: 6.5 - 9.0 $\Delta\text{pH} \leq 0.5$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 22$ S.V.: $\leq 25$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: $\leq 0.1$	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.5$ Apr.-Nov. S.V.: $\leq 1.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	A-Avg.: $\leq 370$ S.V.: $\leq 385$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	—	Annual Median: $\leq 80^c$	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l	—	S.V.: $\leq 50$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	—	S.V.: $\leq 5$	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 75$ S.V.: $\leq 200$	$\leq 200$ -400 <sup>e</sup>	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	—	Annual Geometric Mean: $\leq 126$ S.V.: $\leq 406$	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	—	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 48, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95)

# NAC 445A.204 Humboldt River at Palisade Gage.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point: at the Palisade Gage. The limits in this table apply from the control point at Palisade Gage upstream to the Osino control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 3^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 $\Delta\text{pH}: \pm 0.5$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: $\geq 5.0$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 1$ S.V.: $\leq 30$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	-	Apr.-Nov. Seasonal Avg.: $\leq 0.1$	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.4$ Apr.-Nov. S.V.: $\leq 1.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	A-Avg.: $\leq 350$ S.V.: $\leq 400$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	-	Annual Median: $\leq 80^c$	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l	-	S.V.: $\leq 250$	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	-	S.V.: $\leq 50$	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 20$ S.V.: $\leq 150$	$\leq 200/400^c$	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli - No./100 ml	-	Annual Geometric Mean: $\leq 126$ S.V.: $\leq 406$	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	-	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.:  $\leq 80$  mg/l of suspended solids.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 49, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95)

# NAC 445A.205 Humboldt River at Battle Mountain Gage.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point at the Battle Mountain Gage. The limits in this table apply from the control point at Battle Mountain Gage upstream to the Palisade Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	ΔT = 0°C	ΔT ≤ 0°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.4 S.V.: 7.0 - 8.6	S.V.: 6.5 - 9.0 ΔpH: ≤ 0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: ≥ 5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤ 50 S.V.: ≤ 70	S.V.: ≤ 50	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: ≤ 0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: ≤ 1.9 Apr.-Nov. S.V.: ≤ 4.0	Nitrate S.V.: ≤ 10 Nitrite S.V.: ≤ 1.0 Ammonia S.V.: ≤ 0.02 (un-ionized)	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	A-Avg.: ≤ 25 S.V.: ≤ 20	A-Avg.: ≤ 500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	—	Annual Median: ≤ 80 <sup>c</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l	—	S.V.: ≤ 50	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	—	S.V.: ≤ 50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤ 50 S.V.: ≤ 200	≤ 200-400 <sup>e</sup>	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	—	Annual Geometric Mean: ≤ 126 S.V.: ≤ 406	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	—	A-Avg.: ≤ 8	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V. ≤ 80 mg/l of suspended solids.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 50, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95)

# NAC 445A.206 Humboldt River at crossing of state highway 789.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point where state highway 789 crosses the Humboldt River. The limits in this table apply from the control point where state highway 789 crosses the Humboldt River upstream to the Bartle Mountain Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - $\Delta T$ - Single Value <sup>a</sup>	$\Delta T = 0^{\circ}\text{C}$	$\Delta T \leq 0^{\circ}\text{C}$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.7	S.V.: 6.5 - 9.0 $\Delta\text{pH} \leq 0.5$	Water contact recreation <sup>b</sup> , wildlife propagation <sup>c</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: $\geq 5.0$	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: $\leq 60$ S.V.: $\leq 110$	S.V.: $\leq 50$	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	-	Apr.-Nov. Seasonal Avg.: $\leq 0.1$	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 0.9$ Apr.-Nov. S.V.: $\leq 3.7$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.02$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	A-Avg.: $\leq 500$ S.V.: $\leq 560$	A-Avg.: $\leq 500$	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	-	Annual Median: $\leq 80^d$	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l	-	S.V.: $\leq 250$	Municipal or domestic supply.
Color - PCU	4	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	-	S.V.: $\leq 50$	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: $\leq 40$ S.V.: $\leq 100$	$\leq 200/400^e$	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli - No./100 ml	-	Annual Geometric Mean: $\leq 126$ S.V.: $\leq 406$	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	-	A-Avg.: $\leq 8$	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V.  $\leq 80$  mg/l of suspended solids.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 51, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-19-95)

# NAC 445A.207 Humboldt River at Imlay.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point at Imlay. The limits in this table apply from the control point at Imlay upstream to the Cornus Gage control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	ΔT = °C	ΔT ≤ °C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.5 S.V.: 7.0 - 8.7	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>b</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	-	S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤70 S.V.: ≤85	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	-	Apr.-Nov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	Total Nitrogen A-Avg.: ≤4 Apr.-Nov. S.V.: ≤9	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 Ammonia S.V.: ≤0.02 (un-ionized)	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	S.V.: ≤500	A-Avg.: ≤500	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	-	Annual Median: ≤80 <sup>c</sup>	Aquatic life (warm-water fishery) <sup>b</sup>
Sulfate - mg/l	-	S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	-	S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤30 S.V.: ≤150	≤200/400 <sup>c</sup>	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	-	Annual Geometric Mean: ≤126 S.V.: ≤406	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	-	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 52, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95)

# NAC 445A.208 Humboldt River at Woolsey.

## STANDARDS OF WATER QUALITY Humboldt River

Control Point at Woolsey. The limits in this table apply from the control point at Woolsey upstream to the Imlay control point.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - ΔT - Single Value <sup>a</sup>	ΔT = 0°C	ΔT ≤ 0°C	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation.
pH Units Standard Units	A-Avg.: 7.0 - 8.9 S.V.: 7.0 - 9.0	S.V.: 6.5 - 9.0 ΔpH: ±0.5	Water contact recreation <sup>b</sup> , wildlife propagation <sup>c</sup> , aquatic life (warm-water fishery), irrigation, stock watering, municipal or domestic supply and industrial supply.
Dissolved Oxygen - mg/l	—	S.V.: ≥5.0	Aquatic life (warm-water fishery) <sup>b</sup> , water contact recreation, wildlife propagation, stock watering, municipal or domestic supply and noncontact recreation.
Chlorides - mg/l	A-Avg.: ≤130 S.V.: ≤175	S.V.: ≤50	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation and stock watering.
Total Phosphorus (as P) - mg/l	—	Apr.-Nov. Seasonal Avg.: ≤0.1	Aquatic life (warm-water fishery) <sup>b</sup> , bathing and water contact recreation, municipal or domestic supply and noncontact recreation.
Nitrogen species (N) - mg/l	—	Nitrate S.V.: ≤10 Nitrite S.V.: ≤1.0 Ammonia S.V.: ≤0.02	Municipal or domestic supply <sup>b</sup> , wildlife propagation, irrigation, stock watering and aquatic life (warm-water fishery).
Total Dissolved Solids - mg/l	A-Avg.: ≤600 S.V.: ≤700	A-Avg.: ≤1000	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Suspended Solids - mg/l	—	Annual Median: ≤80 <sup>e</sup>	Aquatic life (warm-water fishery) <sup>b</sup> .
Sulfate - mg/l	—	S.V.: ≤250	Municipal or domestic supply.
Color - PCU	d	No Adverse Effects	Municipal or domestic supply <sup>b</sup> .
Turbidity - NTU	—	S.V.: ≤50	Aquatic life (warm-water fishery) <sup>b</sup> , municipal or domestic supply.
Fecal Coliform - No./100 ml	Annual Geometric Mean: ≤100 S.V.: ≤200	≤200/400 <sup>c</sup>	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
E. Coli No./100 ml	—	Annual Geometric Mean: ≤126 S.V.: ≤406	Contact recreation <sup>b</sup> , noncontact recreation, municipal or domestic supply, irrigation, wildlife propagation and stock watering.
Sodium - SAR	—	A-Avg.: ≤8	Irrigation <sup>b</sup> and municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone.
- The most restrictive beneficial use.
- Based on the minimum of not less than 5 samples taken over a 30-day period, the fecal coliform bacterial level may not exceed a geometric mean of 200 per 100 ml nor may more than 10 percent of the total samples taken during any 30-day period exceed 400 per 100 ml.
- Increase in color must not be more than 10 PCU above natural conditions.
- The maximum allowable point source discharge is S.V. ≤80 mg/l of suspended solids.

[Environmental Comm'n. Water Pollution Control Reg. part § 4.2.5, Table 53, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 6-29-84; 11-29-95)



**NAC 445A.209 Beneficial uses for Muddy River at Glendale Bridge.** The standards for water quality for the Muddy River at Glendale Bridge are prescribed in NAC 445A.210. The beneficial uses for this area are:

1. Irrigation;
2. Watering of livestock;
3. Recreation not involving contact with the water;
4. Industrial supply;
5. Municipal or domestic supply, or both;
6. Propagation of wildlife; and
7. Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, 7-31-85, eff. 8-1-85)—(Substituted in revision for NAC 445.1379)

# **NAC 445A.210 Muddy River at Glendale Bridge.**

## **STANDARDS OF WATER QUALITY Muddy River**

Control Point at Glendale Bridge. The limits in this table apply from the Glendale Bridge upstream to the river source.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}$	Nov.-Jun.: $\leq 21^\circ\text{C}$ Jul.-Oct.: $\leq 32^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> .
pH Units	-	S.V.: 7.0 - 9.0 $\Delta\text{pH}$ : $\pm 0.5$ Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering, municipal or domestic supply and industrial supply.
Total Phosphates (as P) - mg/l	-	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> , noncontact recreation, and municipal or domestic supply.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.4$	Nitrate S.V.: $\leq 10$ Nitrite S.V.: $\leq 1.0$ Ammonia S.V.: $\leq 0.6$ (un-ionized)	Municipal or domestic supply <sup>b</sup> , aquatic life, water contact recreation, stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: $\leq 5.0$	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation, stock watering and municipal or domestic supply.
Turbidity - NTU	-	c	Aquatic life <sup>b</sup> and municipal or domestic supply.
Color - PCU	-	d	Aquatic life <sup>b</sup> and municipal or domestic supply.
Total Dissolved Solids - mg/l	-	c	Municipal or domestic supply <sup>b</sup> , irrigation and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	-	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Noncontact recreation <sup>b</sup> , municipal or domestic supply <sup>b</sup> , irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 54, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85; eff. 8-1-85)—(Substituted in revision for NAC 445.1381)

# NAC 445A.211 Muddy River at Overton.

## STANDARDS OF WATER QUALITY Muddy River

Control Point at Overton. The limits in this table apply from the mouth of the river at Lake Mead to the Glendale Bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ\text{C}^a$	Nov.-Jun.: $\leq 21^\circ\text{C}$ Jul.-Oct.: $\leq 22^\circ\text{C}$ $\Delta T \leq 2^\circ\text{C}$	Aquatic life <sup>b</sup> .
pH Units	—	S.V.: 7.0 - 9.0 $\Delta\text{pH}: \pm 0.5$ Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering industrial supply.
Total Phosphates (as P) - mg/l	—	A-Avg.: $\leq 0.3$	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 1.3$ S.V.: $\leq 1.8$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$ Ammonia S.V.: $\leq 0.6$ (un-ionized)	Aquatic life <sup>b</sup> , stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	—	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation and stock watering.
Turbidity - NTU	—	c	Aquatic life <sup>b</sup> .
Color - PCU	—	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	—	c	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as $\text{CaCO}_3$ ) - mg/l	—	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	A.G.M.: $\leq 500$ S.V.: $\leq 1300$	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Noncontact recreation <sup>b</sup> irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 55, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85; eff. 8-1-85)—(Substituted in revision for NAC 445.1382)

# **NAC 445A.212 Meadow Valley Wash.**

## **STANDARDS OF WATER QUALITY Meadow Valley Wash**

Control Point at confluence with Muddy River. The limits in this table apply from the confluence of the Meadow Valley Wash with the Muddy River to the bridge above Rox.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum $\Delta T^a$	$\Delta T = 0^\circ C$	Nov.-Jun.: $\leq 21^\circ C$ Jul.-Oct.: $\leq 22^\circ C$ $\Delta T \leq 2^\circ C$	Aquatic life <sup>b</sup> .
pH Units	-	S.V.: 7.0 - 9.0 $\Delta pH: \pm 0.5$ Max.	Wildlife propagation <sup>b</sup> , aquatic life <sup>b</sup> , noncontact recreation, irrigation, stock watering and industrial supply.
Total Phosphates (as P) - mg/l	-	A-Avg.: $\leq 0.1$	Aquatic life <sup>b</sup> and noncontact recreation.
Nitrogen Species (N) - mg/l	Total Nitrogen A-Avg.: $\leq 2.0$ S.V.: $\leq 3$	Nitrate S.V.: $\leq 90$ Nitrite S.V.: $\leq 5.0$ Ammonia S.V.: $\leq 0.6$ (un-ionized)	Aquatic life <sup>b</sup> , stock watering, wildlife propagation and noncontact recreation.
Dissolved Oxygen - mg/l	-	S.V.: $\geq 5.0$	Aquatic life <sup>b</sup> , noncontact recreation, wildlife propagation, stock watering.
Turbidity - NTU	-	c	Aquatic life <sup>b</sup> .
Color - PCU	-	d	Aquatic life <sup>b</sup> .
Total Dissolved Solids - mg/l	-	c	Irrigation <sup>b</sup> and stock watering.
Alkalinity (as $CaCO_3$ ) - mg/l	-	less than 25% change from natural conditions	Aquatic life <sup>b</sup> and wildlife propagation.
Fecal Coliform - No./100 ml	-	A.G.M.: $\leq 1000$ S.V.: $\leq 2000$	Noncontact recreation <sup>b</sup> , irrigation, wildlife propagation and stock watering.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The most restrictive beneficial use.
- The salinity standard for the Colorado River System is specified in NAC 445A.143.
- Increase in color must not be more than 10 PCU above natural conditions.
- Increase in turbidity must not be more than 10 NTU above natural conditions.

[Environmental Comm'n, Water Pollution Control Reg. part § 4.2.5, Table 56, eff. 5-2-78; A 1-25-79; 8-28-79; 1-25-80; 12-3-80]—(NAC A 7-31-85; eff. 8-1-85)—(Substituted in revision for NAC 445.1385)

**NAC 445A.213 Minimum quality criteria applicable to interstate waters.** The minimum quality criteria applicable to interstate waters at agreed state line sampling points are as follows:

1. Waters must be free from substances attributable to domestic or industrial waste or other controllable sources that will settle to form sludge or bottom deposits in amounts sufficient to be unsightly, putrescent or odorous or in amounts sufficient to interfere with any beneficial use of the water.

2. Waters must be free from floating debris, oil, grease, scum and other floating materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to be unsightly or in amounts sufficient to interfere with any beneficial use of the water.

3. Waters must be free from materials attributable to domestic or industrial waste or other controllable sources in amounts sufficient to produce taste or odor in the water or detectable off-flavor in the flesh of fish or in amounts sufficient to change the existing color, turbidity or other conditions in the receiving stream to such degree as to create a public nuisance or in amounts sufficient to interfere with any beneficial use of the water.

4. Waters must be free from high temperature, biocides, organisms pathogenic to human beings, toxic, corrosive or other deleterious substances attributable to domestic or industrial waste or other controllable sources at levels or combinations sufficient to be toxic to human, animal, plant or aquatic life or in amounts sufficient to interfere with any beneficial use of the water.

5. Radioactive materials attributable to municipal, industrial or other controllable sources must be minimum concentrations which are physically and economically feasible to achieve. In no case must materials exceed the 1/10 of the 168-hour values for other radioactive substances specified in National Bureau of Standards Handbook 69.

6. Wastes from municipal or industrial or other controllable sources containing arsenic, barium, boron, cadmium, chromium, cyanide, fluoride, lead, selenium, silver, copper and zinc that are reasonably amenable to treatment or control must not be discharged untreated or uncontrolled into the Colorado River System. At agreed points of sampling above Imperial Dam in the Colorado River System the limits for concentrations of these chemical constituents will be set at values that recognize their cumulative effects and which will provide river water quality consistent with the mandatory requirements of the 1962 Public Health Service Drinking Water Standards.

7. The dissolved oxygen content and pH value of the waters of the Colorado River System must be maintained at levels necessary to support the natural and developed fisheries.

[Environmental Comm'n, Water Pollution Control Reg. part Appendix A, eff. 5-2-78]—  
(Substituted in revision for NAC 445.1395)

**NAC 445A.214 Beneficial uses for areas in Snake River Basin.**

1. The standards of water quality for:

(a) Big Goose Creek are prescribed in NAC 445A.215;

(b) Salmon Falls Creek are prescribed NAC 445A.216;

(c) Shoshone Creek are prescribed in NAC 445A.217;

(d) Jarbidge River, East Fork are prescribed in NAC 445A.218;

(e) Jarbidge River upstream from Jarbidge are prescribed in NAC 445A.219;

(f) Jarbidge River downstream from Jarbidge are prescribed in NAC 445A.220;

(g) Bruneau River, West Fork are prescribed in NAC 445A.221;

(h) Owyhee River, East Fork above Mill Creek are prescribed in NAC 445A.222;

(i) Owyhee River, East Fork south of Owyhee are prescribed in NAC 445A.223;

(j) Owyhee River, East Fork, Nevada-Idaho state line are prescribed in NAC 445A.224;

and

(k) Owyhee River, South Fork are prescribed in NAC 445A.225.

2. The beneficial uses for these areas are:

- (a) Irrigation;
- (b) Watering of livestock;
- (c) Recreation involving contact with the water;
- (d) Recreation not involving contact with the water;
- (e) Industrial supply;
- (f) Municipal or domestic supply, or both;
- (g) Propagation of wildlife; and
- (h) Propagation of aquatic life.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13965)

STANDARDS OF WATER QUALITY  
Big Goose Creek

Control Point at Ranch.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 13° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) - mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (N) - mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 185	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 9.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	—	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n. eff. 9-20-90)—(Substituted in revision for NAC 445.13966)

# NAC 445A.216 Salmon Falls Creek.

## STANDARDS OF WATER QUALITY Salmon Falls Creek

Control Point at Highway 93 south of Jackpot.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C - Maximum <sup>a</sup> ΔT°C	ΔT = 0°	May-Oct < 21° Nov-Apr < 13° ΔT < 1°	Aquatic life, water contact recreation.
pH Units	ΔpH 0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 250	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 14.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	— S.V. < 90	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13967)



NAC 445A.217 Shoshone Creek.

STANDARDS OF WATER QUALITY  
Shoshone Creek

Control Point: Jackpot to Delaplain Road

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T$ °C	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 13° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH = 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 250	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 15.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	—	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13968)

# NAC 445A.218 Jarbidge River: East Fork.

## STANDARDS OF WATER QUALITY East Fork Jarbidge River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum: <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 7° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	-	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	-	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	-	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	-	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 200	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 60	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	-	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No. 100 ml	- S.V. < 100	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	-	c	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13969)

# NAC 445A.219 Jarbidge River upstream from Jarbidge.

## STANDARDS OF WATER QUALITY Jarbidge River

Control Point upstream from Jarbidge at bridge.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 7° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	S.V. < 0.05	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 65	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 7.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	S.V. < 10	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	—	Municipal and domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.1397).

# **NAC 445A.220 Jarbidge River downstream from Jarbidge.**

## **STANDARDS OF WATER QUALITY Jarbidge River**

Control Point downstream from Jarbidge at bridge

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 7° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	S.V. < 0.05	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	-	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	-	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	-	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 80	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 7.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	-	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	-	< 200,400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	-	±	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n. eff. 9-20-90)—(Substituted in revision for NAC 445.13971)

# NAC 445A.221 Bruneau River: West Fork.

## STANDARDS OF WATER QUALITY Bruneau River

Control Point at Diamond "A" Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T$ °C	$\Delta T = 0^\circ$	May-Oct < 2; <sup>a</sup> Nov-Apr < 1; <sup>a</sup> $\Delta T < 1^\circ$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 180	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 7.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	— S.V. < 80	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	5	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n. eff. 9-20-90)—(Substituted in revision for NAC 445.13972)

# NAC 445A.222 Owyhee River: East Fork above Mill Creek.

## STANDARDS OF WATER QUALITY Owyhee River

Control Point above Mill Creek

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> ΔT°C	ΔT = 0°	May-Oct < 21° Nov-Apr < 7° ΔT < 1°	Aquatic life, water contact recreation.
pH Units	ΔpH ±0.5	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	-	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	-	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	-	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	-	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 200	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 8.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	-	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	-	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	-	=	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n. eff. 9-20-90)—(Substituted in revision for NAC 445.13973)

NAC 445A.223 Owyhee River: East Fork south of Owyhee.

STANDARDS OF WATER QUALITY  
Owyhee River

Control Point at New China Dam.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 15° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH = 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 250	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 8.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	— S.V. < 125	< 200-400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	—	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n. eff. 9-20-90)—(Substituted in revision for NAC 445.13974)

NAC 445A.224 Owyhee River: East Fork, Nevada-Idaho state line.

STANDARDS OF WATER QUALITY  
Owyhee River

Control Point at the Nevada-Idaho state line.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T$ °C	$\Delta T = 0^{\circ}$	May-Oct: $< 2.1^{\circ}$ Nov-Apr: $< 7^{\circ}$ $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	-	$< 0.1$	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. $< 1.0$	Nitrate S.V. $< 10$ Nitrite S.V. $< 0.06$ Ammonia S.V. $< 0.02$ un-ionized	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	-	$> 6.0$	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	-	S.V. $< 25$	Aquatic life, municipal and domestic supply.
Turbidity - NTU	-	S.V. $< 10$	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. $< 240$	S.V. $< 500$	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. $< 11.0$	S.V. $< 250$	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as $CO_3$ ) - mg/l	-	$< 25\%$ change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	-	$< 200/400^b$	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	-	-	Municipal or domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13975)



# NAC 445A.225 Owyhee River: South Fork.

## STANDARDS OF WATER QUALITY South Fork Owyhee River

Control Point at Petan Access Road.

PARAMETER	REQUIREMENTS TO MAINTAIN EXISTING HIGHER QUALITY	WATER QUALITY STANDARDS FOR BENEFICIAL USES	BENEFICIAL USES
Temperature °C Maximum <sup>a</sup> $\Delta T^{\circ}C$	$\Delta T = 0^{\circ}$	May-Oct < 21° Nov-Apr < 13° $\Delta T < 1^{\circ}$	Aquatic life, water contact recreation.
pH Units	$\Delta pH \pm 0.5$	6.5 - 9.0	Aquatic life, municipal and domestic supply, water contact recreation.
Total Phosphorus (as P) in mg/l	—	< 0.1	Aquatic life, water contact recreation, municipal and domestic supply, noncontact recreation.
Nitrogen Species (as N) in mg/l	Nitrate S.V. < 1.0	Nitrate S.V. < 10 Nitrite S.V. < 0.06 Ammonia S.V. < 0.02 (un-ionized)	Municipal and domestic supply, aquatic life, water contact recreation, noncontact recreation.
Dissolved Oxygen in mg/l	—	> 6.0	Aquatic life, water contact recreation, wildlife propagation, stock watering, municipal and domestic supply, noncontact recreation.
Suspended Solids - mg/l	—	S.V. < 25	Aquatic life, municipal and domestic supply.
Turbidity - NTU	—	S.V. < 10	Aquatic life, municipal and domestic supply.
Total Dissolved Solids - mg/l	S.V. < 280	S.V. < 500	Municipal and domestic supply, irrigation, stock watering.
Chlorides - mg/l	S.V. < 15.0	S.V. < 250	Municipal and domestic supply, wildlife propagation, irrigation, stock watering.
Alkalinity (as CO <sub>3</sub> ) - mg/l	—	< 25% change from natural conditions	Aquatic life, wildlife propagation.
Fecal Coliform - No./100 ml	—	< 200/400 <sup>b</sup>	Water contact recreation, noncontact recreation, municipal and domestic supply, irrigation, wildlife propagation.
Color	—	—	Municipal and domestic supply.

- Maximum allowable increase in temperature above water temperature at the boundary of an approved mixing zone, but the increase must not cause a violation of the single value standard.
- The annual geometric mean must not exceed 200 per 100 milliliters nor may the number of fecal coliform in a single sample exceed 400 per 100 milliliters.
- Increase in color must not be more than 10 color units above natural conditions.

(Added to NAC by Environmental Comm'n, eff. 9-20-90)—(Substituted in revision for NAC 445.13976)

## **Action Levels for Contaminated Sites**

**NAC 445A.226 Definitions.** As used in NAC 445A.22605 to 445A.22755, inclusive, unless the context otherwise requires, the words and terms defined in NAC 445A.22605 to 445A.2268, inclusive, have the meanings ascribed to them in those sections.

(Added to NAC by Environmental Comm'n. eff. 10-3-96)

**NAC 445A.22605 "Action level" defined.** "Action level" means the level of concentration of a hazardous substance, hazardous waste or a regulated substance in soil, ground water or surface water that is established pursuant to NAC 445A.2272, 445A.22735 and 445A.2275 and for which corrective action may be required by the director.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

**NAC 445A.2261 "Administrator" defined.** "Administrator" means the administrator of the division.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

**NAC 445A.22615 "Aquifer" defined.** "Aquifer" has the meaning ascribed to it in NAC 445A.812.

(Added to NAC by Environmental Comm'n. eff. 10-3-96)

**NAC 445A.2262 "Corrective action" defined.** "Corrective action" means a permanent remedy that an owner or operator is required to take after a release of a hazardous substance, hazardous waste or a regulated substance to prevent the substance or waste from posing a threat or potential threat to public health or the environment.

(Added to NAC by Environment Comm'n, eff. 10-3-96)

**NAC 445A.22625 "Director" defined.** "Director" means the director of the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

**NAC 445A.2263 "Division" defined.** "Division" means the division of environmental protection of the state department of conservation and natural resources.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

**NAC 445A.22635 "Ground water" defined.** "Ground water" has the meaning ascribed to it in NAC 445.579.

(Added to NAC by Environmental Comm'n, eff. 10-3-96)

**NAC 445A.2264 "Hazardous substance" defined.** "Hazardous substance" has the meaning ascribed to it in NRS 459.429.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

**NAC 445A.22645 "Hazardous waste" defined.** "Hazardous waste" has the meaning ascribed to it in NAC 444.843.

(Added to NAC by Environmental Comm'n eff. 10-3-96)

**NAC 445A.2265 "Operator" defined.** "Operator" means a person in control of or having responsibility for the daily operation of a site, business or other operation where a hazardous substance, hazardous waste or a regulated substance is disposed of, used or stored.

(Added to NAC by Environmental Comm'n. eff. 10-3-96)